STATE OF CALIFORNIA

GRANTS/CONTINGENT AWARD REQUEST

CEC-270 (Revised 03/10) CALIFORNIA ENERGY COMMISSION

To: Grants and Loans Office Date: 12 / 20 / 2012

Project Manager: Hieu Nguyen Phone Number: (916) 654-4163 ext.

Office: Emerging Fuels and Technologies Division: Fuels and Transportation MS- 27

Project Title: Blue Line Biogenic CNG Facility

Type of Request: *(check one)*

☒ **New Agreement:** *(include items A-F from below)* Agreement Number: Assigned by the G&L Office

Program: Alternative and Renewable Fuel and Vehicle Technology Program

Solicitation Name and/or Number: Biofuels Production Facilities (PON-11-601)

Legal Name of Recipient: Blue Line Transfer, Inc.

Recipient's Full Mailing Address: 1822 21st Street

Sacramento, CA 95811

Recipient's Project Officer: Rick Moore Phone Number: (916) 739-1700 ext.

Agreement Start Date: 02 / 13 / 2013 Agreement End Date: 08 / 31 / 2015

☐ **Amendment :** *(Check all that apply)* Agreement Number:

- ☐ Term Extension – New End Date: / /
- ☐ Work Statement Revision *(include Item A from below)*
- ☐ Budget Revision *(include Item B from below)*
- ☐ Change of Scope *(include Items A – F as applicable from below)*
- ☐ Other: (Specify)

ITEMS TO ATTACH WITH REQUEST:

A. Work Statement
B. Budget
C. Recipient Resolution, if applicable. (Resolution may be requested in Special Conditions if not currently available.)
D. Special Conditions, if applicable.
E. CEQA Compliance Form
F. Other Documents as applicable
- Copy of Score Sheets
- Copy of Pre-Award Correspondence
- Copy of All Other Relevant Documents

California Environmental Quality Act (CEQA)

☒ CEC finds, based on recipient's documentation in compliance with CEQA:

- ☐ Project exempt: NOE filed: / /
- ☒ Environmental Document prepared: Mitigated Negative Declaration NOD filed: 10 / 15 / 2012
- ☐ Other: Explain

☐ CEC has made CEQA finding described in CEC-280, attached

Funding Information:

*Source #1:	ARFVTP	Amount:	$ 1,280,936.00	Statute:	2011	FY: 12/13	Budget List #: 601.118D
*Source #2:	ARFVTP	Amount:	$ 1,309,993.00	Statute:	2012	FY: 12/13	Budget List #: 601-118E
*Source #3:		Amount:	$ 0.00	Statute:		FY:	Budget List #:

If federally funded, specify federal agreement number:

*** Source Examples include ERPA, PIER-E, PIER-NG, FED, GRDA, ARFVT, OTHER.**

Business Meeting Approval: *(refer to Business Meeting Schedule)*

Proposed Business Meeting Date: 2 / 13 / 2013 ☐ Consent ☒ Discussion

Business Meeting Participant: Hieu Nguyen Time Needed: (5 minutes)

Agenda Notice Statement: *(state purpose in layperson terms)*

Possible approval of a ☒ Grant / ☐ Contingent Award to…

Blue Line Transfer, Inc. for $2,590,929.00 to build an anaerobic digestion facility that will convert 9,000 tons per year of food and green waste into 56,000 diesel equivalent gallons (dge) per year of biomethane that would be cleaned and compressed to produce CNG for five CNG refuse and recycling collection vehicles fleet. Project is estimated to creat 15 jobs, which three will be full time positions.

Project Manager	Date	Office Manager	Date	Deputy Director	Date

Exhibit A
Scope of Work

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2	X	Pre-Construction
3		Construction
4		Test and Commission Facility Before Operation
5		Operations
6		Data Collection and Analysis

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Doug Button, Blue Line	Evan Edgar, Total Compliance Management Eric Herbert – Zero Waste Energy	
2	Doug Button, Blue Line Ed Bortoli, Blue Line	Evan Edgar, Total Compliance Management Eric Herbert – Zero Waste Energy	
3	Ed Bortoli, Blue Line	Rick Moore, Total Compliance Management Jeff Bogg, Zero Waste Energy	
4	Ed Bortoli, Blue Line	Rick Moore, Total Compliance Management Jeff Bogg, Zero Waste Energy	
5	Ed Bortoli, Blue Line	Jeff Bogg, Zero Waste Energy	
6	Ed Bortoli, Blue Line	Rick Moore, Total Compliance Management Jeff Bogg, Zero Waste Energy	

GLOSSARY

Specific terms and acronyms used throughout this work scope are defined as follows:

Acronym	Definition

Acronym	Definition
AD	Anaerobic Digestion
ARFVT	Alternative and Renewable Fuel and Vehicle Technology
CAM	Commission Agreement Manager
CI	Carbon Intensity
CNG	Compressed Natural Gas
CPR	Critical Project Review
LCFS	Low Carbon Fuel Standard
GHG	Greenhouse Gas
PG&E	Pacific Gas & Electric
SSF	South San Francisco Scavengers Company
TCM	Total Compliance Management, Inc.
ZWE	Zero Waste Energy

Background:

Assembly Bill 118 (Nùñez, Chapter 750, Statutes of 2007), created the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVT Program). The statute, subsequently amended by AB 109 (Nùñez, Chapter 313, Statutes of 2008), authorizes the Energy Commission to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's climate change policies. The Energy Commission has an annual program budget of approximately $100 million and provides financial support for projects that:

- Develop and improve alternative and renewable low-carbon fuels;
- Optimize alternative and renewable fuels for existing and developing engine technologies;
- Produce alternative and renewable low-carbon fuels in California;
- Decrease, on a full fuel cycle basis, the overall impact and carbon footprint of alternative and renewable fuels and increase sustainability;
- Expand fuel infrastructure, fueling stations, and equipment;
- Improve light-, medium-, and heavy-duty vehicle technologies;
- Retrofit medium- and heavy-duty on-road and non-road vehicle fleets;
- Expand infrastructure connected with existing fleets, public transit, and transportation corridors; and
- Establish workforce training programs, conduct public education and promotion, and create technology centers.

The California Energy Commission issued solicitation PON-11-601 to provide grant funding opportunities under the ARFVT Program for projects which create new, low carbon facilities, or for projects that lower the carbon intensity of fuels produced at existing facilities and to support projects must demonstrate economically competitive yields and lower GHG potential than Low Carbon Fuel Standard (LCFS) pathways for corn ethanol or soy biodiesel. To be eligible for grant funding under PON-11-601, the projects must also be consistent with the Energy Commission's ARFVT Program Investment Plan updated annually. In response to PON-11-601, the Recipient submitted application *number 44*, which was proposed for grant funding in the Energy

Commission's Notice of Proposed Awards (NOPA) on October 5, 2012, and is incorporated by reference to this Agreement in its entirety.

Problem Statement:
This project would be the first of its kind, and as such the following barriers to commercialization would be addressed:

- Demonstrate the construction of an entirely modular, small-scale, biofuel production, processing and fueling system, designed to integrate and complement each other.
- Demonstrate the use of waste gas from biomethane purification as an energy source (electric and thermal).
- Demonstrate the performance of a food waste and green waste anaerobic digestion facility that has been sized such that the tonnage processed and biomethane generated are precisely sized to correspond with a small scale fuel production and on-site fuel dispensing system.
- Optimize biomethane generation by experimenting with different blends of food waste and green waste.
- Optimize equipment settings to balance biogenic energy generation for parasitic needs and fuel production, establishing key operational parameters such as retention time, operating temperature, thermal and electrical loads, water use and waste water generation, and operational and maintenance requirements.
- Establish economic metrics and economic feasibility for this type of small-scale biomethane production facility.
- Determine if composted digestate (co-product) meets the quality attributes for the US Composting Council's Seal of Testing Assurance.

Goals of the Grant Agreement
The goals of this grant agreement are to demonstrate small-scale biomethane production from organic waste for transportation fuel, with simple construction through modular design; optimize system efficiencies and fuel quality; provide a low carbon intensity transportation fuel independent of price and availability fluctuations of fossil-based fuels; and assess heavy duty vehicle performance from small-scale biomethane production. This will be accomplished through monitoring, data collection and system experimentation to optimize operational parameters. Collect data to validate the carbon intensity for this biogenic CNG fuel that has been estimated to be 36 gCO2-eq/MJ for a 10,000 tons per year AD Facility,

Objectives of the Grant Agreement:
The objectives of this grant agreement are:

1) To establish procedures to optimize the integration of small-scale, modular anaerobic digestion, biogas cleanup and fueling systems for compressed natural gas from biomethane;
2) Measure the biogas generation rate from the chosen feedstock;
3) Investigate different feedstock blends of food and green waste;
4) Measure the efficiency of the system as a percent of biomethane converted to transportation fuel;

5) Measure biogas quality and compare to established fuel specifications;
6) Verify the fuel carbon intensity of 36 gCO2-eq/MJ by measuring energy inputs, overall emissions and calculating related GHG emissions.

Project performance metrics are defined in this proposal and will be further specified during the System Design Task. Standard methodologies will be used to measure biogas and fuel quantity and quality. Standard methodologies will also be used to measure and calculate greenhouse gas and other emissions and to verify the fuel carbon intensity. Measured project performance metrics will be compared to design assumptions, standard specifications for fuel quality, and typical vehicle performance standards.

Additionally, water use and waste water generation will be measured. The quality of the digestate from anaerobic digestion as a compost feedstock will be assessed through follow up with the compost producers.

Performance Metrics

Measurements shall be made and assessed relative to anticipated operating characteristics and fuel and energy outputs. The system will contain a significant amount of sensors and measuring equipment to monitor and log all key aspects of operation. The control and operation of ZWE's dry anaerobic digestion and in-vessel composting systems via sensors and actuators are completely automated and can be remotely monitored and controlled by a smartphone device or web client. All relevant indicated value and signals are transferred to the main PC terminal - located in the Electrical Container which in turn can be connected to the internet or wireless network – through a connection by PROFIBUS DP to the Programmable Logic Controller (PLC) of the plant. The following is a list of measuring devices working continuously that provide real time plant telemetry and alarms to the operator.

Blue Line Transfer, Inc. shall develop and use the following test program. The Testing Program will be developed during system design with test methodologies. The Testing Program is anticipated to include:

General

- Weight of organic waste (scale house measurements)
- Percent blend of food waste/green waste
- Weight of non-organic residue (scale house measurements)
- Air emissions (microturbine, emergency flare, equipment fuel consumption)
- Safety precautions and procedures for worker safety
- Water use and waste water generation
- Grid-supplied electricity use
- Maintenance required for system components
- Overall operational inputs

Anaerobic Digestion System

- Temperature measurement in the wall section

- Temperature measurement in the exhaust
- Pressure measurement in the digester
- Level measurement liquid on the digester floor
- Measurement of CH_4, H_2S and O_2 in digesters
- Security relevant pressure monitoring for gate sealing of digester

Basement Percolate Tank

- Temperature
- Analogous level measurement with overfilling protection
- Biogas storage filling level
- Percolate flow temperature
- pH value of percolate

Combined Heat and Power System (microturbine)

- Energy content of fuel (biomethane purification waste gas)
- Amount of down time
- Efficiency (electrical & thermal power output/thermal energy input)

Note: All states and parameters necessary for operations are transmitted to the PLC

Biogas Collection and Storage

- Low Pressure Controller
- Measurement of CH_4, H_2S and O_2

BioCNG Treatment and Fueling System

- Waste gas volume flow and energy content to BioCNG purification system
- Percent recovery of methane for CNG fuel and energy content of purified fuel CNG
- Efficacy of biogas cleanup system, particularly removal of siloxane and hydrogen sulfide
- CNG fuel storage capacity sufficiency as a function of fueling patterns
- Time period for break through the SI/VOC treatment media
- Time period for breakthrough the H2S treatment media

Overall System Integration

There are various ways in which to adjust flows and pressure throughout the system, some of which involve tradeoffs in system performance. Different system adjustments shall be experimented with to evaluate optimal settings.

Digestate and Co-product Compost

Blue Line shall employ the Test Methods for the Examination of Compost and Composting (TMECC) to verify the physical, chemical and biological condition of composting feedstocks, material in process and final compost products derived from composting the digestate. These protocols will ensure that process control is maintained, products attributes are verified, worker safety is assured and degradation of the environment in and around the Research Composting Operation is avoided. Blue

Line shall follow the TMECC sampling and sample preparation guidelines for the following:

- Physical Properties
- Inorganic Chemical Properties
- Organic and Biological Properties
- Synthetic Organic Compounds
- Pathogens

- Data to be Gathered. For the Seal of Testing Assurance, Blue Line shall gather the following data to assess compost quality:
  - pH
  - soluble salts
  - nutrient content (total N, P2O5, K2O, Ca, Mg)
  - moisture content
  - organic matter content
  - bioassay (maturity)
  - stability (respirometry)
  - particle size
  - pathogen (Fecal Coliform or Salmonella)
  - trace metals (Part 503 regulated metals)

Heavy Duty Collection Vehicle Performance

Vehicle performance shall be monitored through reports provided by drivers. Blue Line services customers in South San Francisco, Milbrae and Brisbane where there are hilly areas. Adjustments to engines or fuel that are required to achieve requisite vehicle power will be reported.

TASK 1 ADMINISTRATION

Task 1.1 Attend Kick-off Meeting

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement.

The Recipient shall:

- Attend a "Kick-Off" meeting with the Commission Agreement Manager, the Grants Officer, and a representative of the Accounting Office. The Recipient shall bring its Project Manager, Agreement Administrator, Accounting Officer, and others designated by the Commission Agreement Manager to this meeting. The administrative and technical aspects of this Agreement will be discussed at the meeting. Prior to the kick-off meeting, the Commission Agreement Manager will provide an agenda to all potential meeting participants.

The administrative portion of the meeting shall include, but not be limited to, the following:

- Discussion of the terms and conditions of the Agreement
- Discussion of Critical Project Review (Task 1.2)
- Match fund documentation (Task 1.6). No work may be done until this documentation is in place.
- Permit documentation required (Task 1.7)
- Discussion of subcontracts needed to carry out project (Task 1.8)

The technical portion of the meeting shall include, but not be limited to, the following:

- The Commission Agreement Manager's expectations for accomplishing tasks described in the Scope of Work
- An updated Schedule of Products
- Discussion of Progress Reports (Task 1.4)
- Discussion of Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
- Discussion of the Final Report (Task 1.5)

The Commission Agreement Manager shall designate the date and location of this meeting.

Recipient Products:

- Updated Schedule of Products
- Updated List of Match Funds
- Updated List of Permits
- Updated List of Cost and Equipment organized by task

Commission Agreement Manager Product:

- Kick-Off Meeting Agenda

Task 1.2 Critical Project Review (CPR) Meetings

The goal of this task is to determine if the project should continue to receive Energy Commission funding to complete this Agreement and to identify any needed modifications to the tasks, products, schedule or budget.

CPRs provide the opportunity for frank discussions between the Energy Commission and the Recipient. CPRs generally take place at key, predetermined points in the Agreement, as determined by the Commission Agreement Manager and as shown in the Technical Task List above. However, the Commission Agreement Manager may schedule additional CPRs as necessary, and any additional costs will be borne by the Recipient.

Participants include the Commission Agreement Manager and the Recipient and may include the Commission Grants Officer, the Fuels and Transportation Division (FTD) team lead, other Energy Commission staff and Management as well as other individuals

selected by the Commission Agreement Manager to provide support to the Energy Commission.

The Commission Agreement Manager shall:

- Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the Energy Commission, but they may take place at another location.
- Send the Recipient the agenda and a list of expected participants in advance of each CPR. If applicable, the agenda shall include a discussion on both match funding and permits.
- Conduct and make a record of each CPR meeting. One of the outcomes of this meeting will be a schedule for providing the written determination described below.
- Determine whether to continue the project, and if continuing, whether or not modifications are needed to the tasks, schedule, products, and/or budget for the remainder of the Agreement. Modifications to the Agreement may require a formal amendment (please see the Terms and Conditions, Section 8). If the Commission Agreement Manager concludes that satisfactory progress is not being made, this conclusion will be referred to the Transportation Committee for its concurrence.
- Provide the Recipient with a written determination in accordance with the schedule. The written response may include a requirement for the Recipient to revise one or more product(s) that were included in the CPR.

The Recipient shall:

- Prepare a CPR Report for each CPR that discusses the progress of the Agreement toward achieving its goals and objectives. This report shall include recommendations and conclusions regarding continued work on the projects. This report shall be submitted along with any other products identified in this scope of work. The Recipient shall submit these documents to the Commission Agreement Manager and any other designated reviewers at least 15 working days in advance of each CPR meeting.
- Present the required information at each CPR meeting and participate in a discussion about the Agreement.

Commission Agreement Manager Products:

- Agenda and a list of expected participants
- Schedule for written determination
- Written determination

Recipient Product:

- CPR Report(s)

Task 1.3 Final Meeting

The goal of this task is to closeout this Agreement.

The Recipient shall:

- Meet with Energy Commission staff to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.

  This meeting will be attended by, at a minimum, the Recipient, the Commission Grants Office Officer, and the Commission Agreement Manager. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the Commission Agreement Manager.

  The technical portion of the meeting shall present an assessment of the degree to which project and task goals and objectives were achieved, findings, conclusions, recommended next steps (if any) for the Agreement, and recommendations for improvements. The Commission Agreement Manager will determine the appropriate meeting participants.

  The administrative portion of the meeting shall be a discussion with the Commission Agreement Manager and the Grants Officer about the following Agreement closeout items:
  - What to do with any equipment purchased with Energy Commission funds (Options)
  - Energy Commission's request for specific "generated" data (not already provided in Agreement products)
  - "Surviving" Agreement provisions
  - Final invoicing and release of retention

- Prepare a schedule for completing the closeout activities for this Agreement.

Products:

- Written documentation of meeting agreements
- Schedule for completing closeout activities

Task 1.4 Monthly Progress Reports

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the research objectives of this Agreement on time and within budget.

The objectives of this task are to summarize activities performed during the reporting period, to identify activities planned for the next reporting period, to identify issues that may affect performance and expenditures, and to form the basis for determining whether invoices are consistent with work performed.

The Recipient shall:

- Prepare a Monthly Progress Report which summarizes all Agreement activities conducted by the Recipient for the reporting period, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Each progress report is due to the Commission Agreement Manager within 10 days of the end of the reporting period. The recommended specifications for each progress report are contained in Section 6 of the Terms and Conditions of this Agreement.

Product:

- Monthly Progress Reports

Task 1.5 Final Report

The goal of the Final Report is to assess the project's success in achieving its goals and objectives, advancing science and technology, and providing energy-related and other benefits to California.

The objectives of the Final Report are to clearly and completely describe the project's purpose, approach, activities performed, results, and advancements in science and technology; to present a public assessment of the success of the project as measured by the degree to which goals and objectives were achieved; to make insightful observations based on results obtained; to draw conclusions; and to make recommendations for further projects and improvements to the FTD project management processes.

The Final Report shall be a public document. If the Recipient has obtained confidential status from the Energy Commission and will be preparing a confidential version of the Final Report as well, the Recipient shall perform the following activities for both the public and confidential versions of the Final Report.

The Recipient shall:

- Prepare an Outline of the Final Report.
- Prepare a Final Report following the approved outline and the latest version of the Final Report guidelines which will be provided by the Commission Agreement Manager. The Commission Agreement Manager shall provide written comments on the Draft Final Report within fifteen (15) working days of receipt. The Final Report must be completed at least 60 days before the end of the Agreement Term.
- Submit one bound copy of the Final Report with the final invoice.

Products:

- Draft Outline of the Final Report
- Final Outline of the Final Report
- Draft Final Report
- Final Report

Task 1.6 Identify and Obtain Matching Funds

The goal of this task is to ensure that the match funds planned for this Agreement are obtained for and applied to this Agreement during the term of this Agreement.

The costs to obtain and document match fund commitments are not reimbursable through this Agreement. Although the Energy Commission budget for this task will be zero dollars, the Recipient may utilize match funds for this task. Match funds shall be spent concurrently or in advance of Energy Commission funds for each task during the term of this Agreement. Match funds must be identified in writing and the associated commitments obtained in preparation of the kick-off meeting.

The Recipient shall:

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the Commission Agreement Manager at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the Energy Commission awarding this Agreement and none have been identified at the time this Agreement starts, then, state such in the letter. If match funds were a part of the proposal that led to the Energy Commission awarding this Agreement, then provide in the letter a list of the match funds that identifies the:
    - Amount of each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied.
    - Amount of each in-kind contribution, a description, documented market or book value, and its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.
- Provide a copy of the letter of commitment from an authorized representative of each source of cash match funding or in-kind contributions that these funds or contributions have been secured. For match funds provided by a grant, a copy of the executed grant shall be submitted in place of a letter of commitment.
- Discuss match funds and the implications to the Agreement if they are reduced or not obtained as committed, at the kick-off meeting. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide the appropriate information to the Commission Agreement Manager if during the course of the Agreement additional match funds are received.
- Notify the Commission Agreement Manager within 10 days if during the course of the Agreement existing match funds are reduced. Reduction in

Products:

- A letter regarding match funds or stating that no match funds are provided
- Copy(ies) of each match fund commitment letter(s)
- Letter(s) for new match funds
- Letter that match funds were reduced

Task 1.7 Identify and Obtain Required Permits

The goal of this task is to obtain all permits required for work completed under this Agreement in advance of the date they are needed to keep the Agreement schedule on track.

Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement. Although the Energy Commission budget for this task will be zero dollars, the Recipient shall budget match funds for any expected expenditures associated with obtaining permits. Permits must be identified in writing and obtained before the Recipient can make any expenditure for which a permit is required.

The Recipient shall:

- Prepare a letter documenting the permits required to conduct this Agreement and submit it to the Commission Agreement Manager at least 2 working days prior to the kick-off meeting. If there are no permits required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, provide in the letter:
  - A list of the permits that identifies the:
    - Type of permit
    - Name, address and telephone number of the permitting jurisdictions or lead agencies
  - The schedule the Recipient will follow in applying for and obtaining these permits.
- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting and develop a timetable for submitting the updated list, schedule and the copies of the permits. The implications to the Agreement if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in the Progress Reports and will be a topic at CPR meetings.
- If during the course of the Agreement additional permits become necessary, provide the appropriate information on each permit and an updated schedule to the Commission Agreement Manager.
- As permits are obtained, send a copy of each approved permit to the Commission Agreement Manager.

- If during the course of the Agreement permits are not obtained on time or are denied, notify the Commission Agreement Manager within 5 working days. Either of these events may trigger an additional CPR.

Products:

- Letter documenting the permits or stating that no permits are required
- A copy of each approved permit
- Updated list of permits as they change during the term of the Agreement Updated schedule for acquiring permits as changes occur during the term of the Agreement

Task 1.8 Obtain and Execute Subcontracts

The goal of this task is for Recipients to identify any subcontracts required to carry out the tasks under this Agreement and to procure them consistent with the terms and conditions of this Agreement and the Recipient's own procurement policies and procedures. It will also provide the Energy Commission an opportunity to review the subcontracts to ensure that the tasks are consistent with this Agreement, that the budgeted expenditures are reasonable and consistent with applicable cost principles.

The Recipient shall:

- Prepare a letter documenting the subcontracts required to conduct this Agreement, and submit it to the Commission Agreement Manager at least 2 working days prior to the kick-off meeting. If there are no subcontracts required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that subcontracts will be required during the course of the Agreement, provide in the letter:
  - A list of the subcontracts that describes the anticipated maximum budget and general scope of work for each,
  - A description of the procurement process to be used, and
  - The schedule the Recipient will follow in applying for and obtaining these subcontracts
- Submit a draft of the subcontract that will include a budget with the information required in the budget details to the Commission Agreement Manager for review.
- Submit a final copy of the executed subcontract.

Products:

- Letter describing the subcontracts needed, or stating that no subcontracts are required
- Draft subcontracts
- Final subcontracts

TECHNICAL TASKS

TASK 2 PRE-CONSTRUCTION

The goal of this task is to complete design and order all equipment and accessories to construct the facility.

This task includes:

- System and Site Design
- Construction and Equipment List
- Obtain Permits Requiring Design Submittals
- Obtain interconnect Agreement with Utility Company
- Approval to Proceed with Construction
- Equipment Ordering
- Equipment Delivery

The Recipient shall:
Put in place the necessary permits, utility company interconnect agreement, complete the design and order the equipment.

Products:

- Site design and construction package.
- Detailed equipment list with specifications and identified vendors.
- Construction project schedule.
- Established operational parameters and performance projections.
- On time delivery of equipment meeting project specifications.
- Building permit
- Authority to Construct Permit
- Solid Waste Facility Permit Revision Application
- Generating Facility Interconnection Agreement
- Written Notification of Readiness to Construct
- Construction Timeline

[CPR WILL BE HELD IN THIS TASK. See Task 1.2 for details]

TASK 3 CONSTRUCTION

The goal of this task is to construct the fuel production facility and prepare it for operations. The goal of this task is to provide construction project management, coordinating the construction schedule, equipment delivery and required inspections; respond to any issues that arise during construction and equipment installation; ensure that prevailing wages are paid as required.

The Recipient shall:
Provide professional project management services constructing the project as outlined in the Construction Timeline and Construction and Equipment list. Prepare a Written

Notification of Facility Operation and submit it to the Commission Agreement Manager within ten working days of operation of the project. The Written Notification shall contain he following elements:

- The date the project achieved operation(s)
- A narrative on the current status of the project and initial operations
- Any changes made from the project as originally proposed and reasons for those changes.

Products:

- Written Notification of Completion of Construction of the Facility

TASK 4 TEST AND COMMISSION FACILITY BEFORE OPERATING

The goal of this task is to optimize system integration, verify operational parameters and ensure that the facility and equipment function as designed.

The Recipient shall:

- Initiate anaerobic digestion and the generation of biogas, initiate operation of the biogas cleanup, power generation and fueling systems, and verify operational parameters and system performance.

Products:

- A report documenting system functionality relative to design.

TASK 5 OPERATIONS

The goal of this task is to operate the fuel production facility as designed and to begin to collect data to document the project's fulfillment of its objectives.

The Recipient shall:

- Operate facility and comply with all applicable regulatory standards.
- Prepare Monthly Operations Reports.
    - A narrative on operational highlights from the previous month, including any stoppages in production and a statement as to the project's compliance with regulatory requirements.
    - The total amount of fuel produced on a monthly basis
    - The total amount of feedstock received and processed on a monthly basis
    - Conversion ratio for feedstock to fuel production
    - The direct operational costs of the project

Products:

- Monthly Operations Reports

TASK 6 DATA COLLECTION AND ANALYSIS

The goal of this task is to measure relevant biogas, fuel parameters and vehicle performance.

The Recipient shall:

- Weigh and observe feedstock composition.
- Measure biogas and transportation fuel production.
- Conduct analyses of biogas composition.
- Compare vehicle performance in the areas of power, fuel economy and maintenance relative to fossil fuel CNG and diesel fuel powered comparable vehicles.

Products:

- A log of feedstock weight and type
- Database of biogas production and composition
- Measure flow rate of transportation fuel.
- Measure quality of transportation fuel relative to Engine Manufacturers Specifications, SAE J1616.
- Measure flow rate and methane content of waste gas from cleanup processes.
- Database of biomethane fuel generation and composition.
- Quality assessment of CNG relative to Engine Manufacturers Specifications, SAE J1616.
- Quantification of system efficiency as a percent of biomethane conversion to transportation fuel.
- Reviewed and approved certified payroll ensuring prevailing wages are paid as required.
- A report documenting vehicle performance.

Task 6.1 Project Data Collection and Analysis

The goal of this task is to collect and analyze operational data to determine the economic viability and environmental impact of the project. Final analysis of all project data must be included in the Final Report.

The Recipient Shall:

- Collect a minimum of 6 months of operational data from fuel production system to include:
  - time operating (up and down time)
  - efficiency of conversion of feedstock
  - biofuel production rate
  - quality and quantity of fuel produced
- Estimate gasoline and/or petroleum-based diesel fuel that will be displaced annually.

- Explain how the project will reduce criteria air pollutants and air toxics and reduce or avoid multimedia environmental impact, and lead to a decrease, on a life cycle basis, in emissions of water pollutants or any other substances known to damage human health or the environment.
- Explain how the project incorporated and achieved the sustainability goals.
- Provide a quantified estimate of the project's carbon intensity values for life-cycle scale greenhouse gas emissions.
- Quantify any water efficiency and water use reduction measures used in the project including, but not limited to, the use of recycled or reclaimed water and the reduction or elimination of point and nonpoint source wastewater discharge.
- Describe any potential use of renewable energy or cogeneration in the project.
- Describe any potential energy efficiency measures used in the project that would exceed Title 24 standards in Part 6 of the California Code of Regulations.
- Provide data on expected job creation, economic development, and increased state revenue.
- Compare any project performance and expectations provided in the proposal to Energy Commission with actual project performance and accomplishments.
- Describe how the project supports new technology advancement for vehicles, vessels, engines, and other equipment, and promote the deployment of such technologies in the marketplace. To the extent possible describe how the project, provided a measurable transition from the nearly exclusive use of petroleum fuels to a diverse portfolio of viable alternative fuels that meets California's petroleum reduction and alternative fuel use goals.
- Describe how the project demonstrated the cost-effectiveness of the proposed technology in achieving greenhouse gas emissions reduction.
- Provide additional data that may be requested by the Energy Commission during the term of this Agreement, as is reasonably available.

Products:

Information specified above shall be included in the Final Report.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE

Award Number: ARV-12-031 Date: 01 / 07 / 2013

Note: The Energy Commission Project Managers Manual includes detailed instructions on how to complete this section, with examples of grants that are "Projects" and are not "Projects". When the Project Manager is completing this section, if questions arise as to the appropriate answers to the questions below, please consult with the Energy Commission attorney assigned to review grants or loans for your division.

1. Is grant/loan considered a "Project" under CEQA? ☒ Yes *(skip to question #2)* ☐ No *(continue with question #1)*

   Please complete the following: *[Public Resources Code (PRC) 21065 and 14 California Code of Regulations (CCR) 15378]:*

   Explain why the grant/loan is ***not*** considered a "Project"? The grant/loan will not cause a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because grant/loan involves:

2. If grant/loan is considered a "Project" under CEQA: *(choose either **IS** or **IS NOT**)*

   ☒ Grant/loan **IS** exempt:

   ☐ Statutory Exemption: *(List PRC and/or CCR section numbers)* _____

   ☐ Categorical Exemption: *(List CCR section number)* _____

   ☐ Common Sense Exemption. *(14 CCR 15061(b)(3))*

   Explain reason why the grant/loan is exempt under the above section:

   Please note that Section 21104(c) of the California Public Resources Code states that:

   "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carred out or approved by the agency. Those comments shall be support by specific documentation.

   The State Clearinghouse has received the Mititgated Negative Declaration on October 15, 2012.

Please attach draft Notice of Exemption (NOE). Consult with the Energy Commission attorney assigned to your division for instructions on how to complete the NOE.

☐ Grant/loan **IS NOT** exempt. The Project Manager needs to consult with the Energy Commission attorney assigned to your division and the Siting Office regarding a possible initial study.

BLUE LINE BIOGENIC CNG FACILITY

Initial Study/Mitigated Negative Declaration

Prepared for
City of South San Francisco

September 2012

ESA

BLUE LINE BIOGENIC CNG FACILITY

Initial Study/Mitigated Negative Declaration

Prepared for
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September 2012

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ENVIRONMENTAL CHECKLIST
Initial Study/Mitigated Negative Declaration

1. **Project Title:** Blue Line Biogenic CNG Facility

2. **Lead Agency Name and Address:** City of South San Francisco
Planning Division
315 Maple Avenue
South San Francisco, CA 94080

3. **Contact Person and Phone Number:** Billy Gross, AICP
(650) 877-8535

4. **Project Location:** Blue Line Material Recovery Facility
500 East Jamie Court
South San Francisco, CA 94080

5. **Project Sponsor's Name and Address:** Blue Line Transfer, Inc.
Doug Button
500 East Jamie Court
South San Francisco, CA 94080

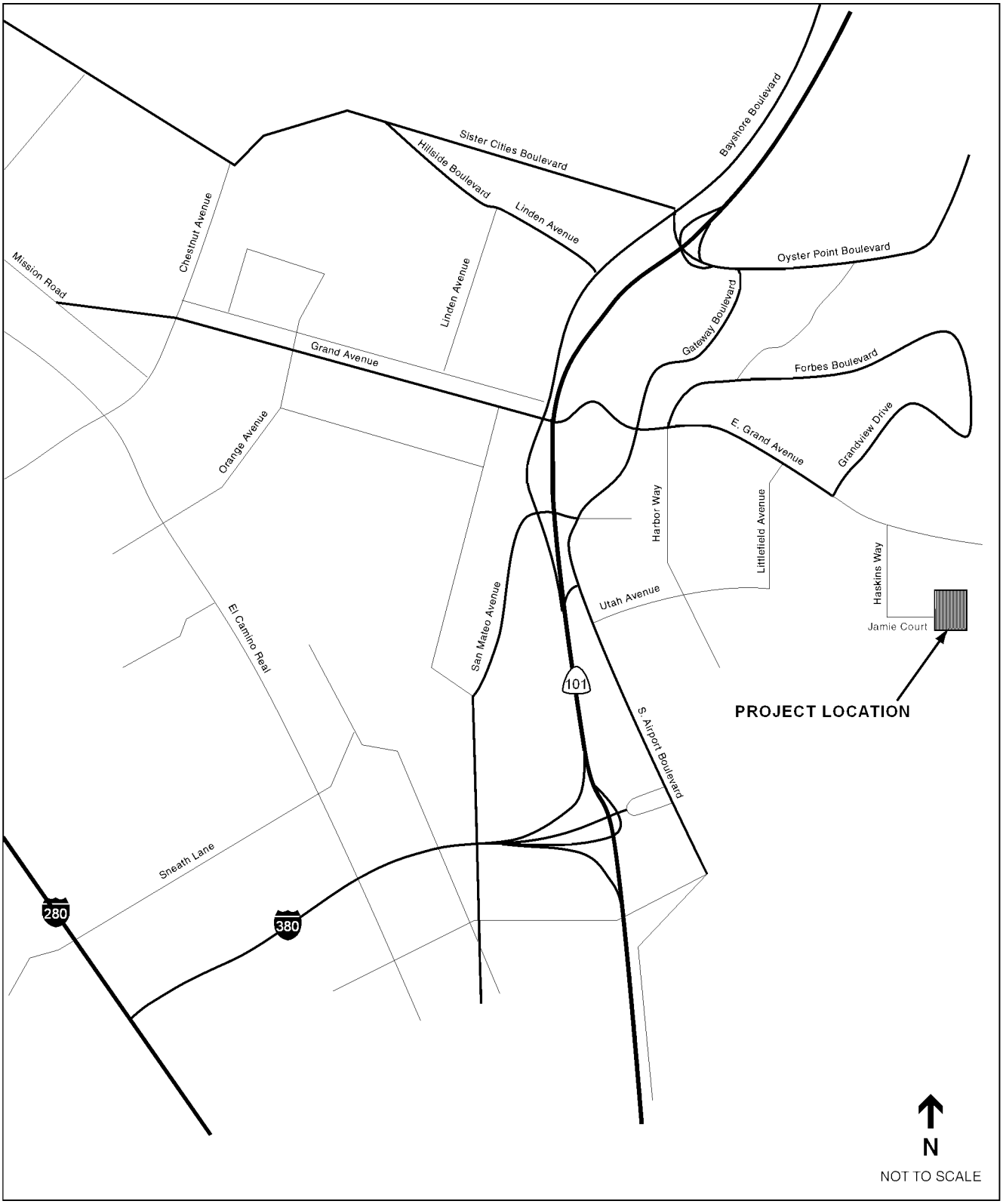
6. **General Plan Designation(s):** Mixed Industrial

7. **Zoning Designation(s):** Mixed Industrial (MI)

8. **Description of Project:**

Introduction

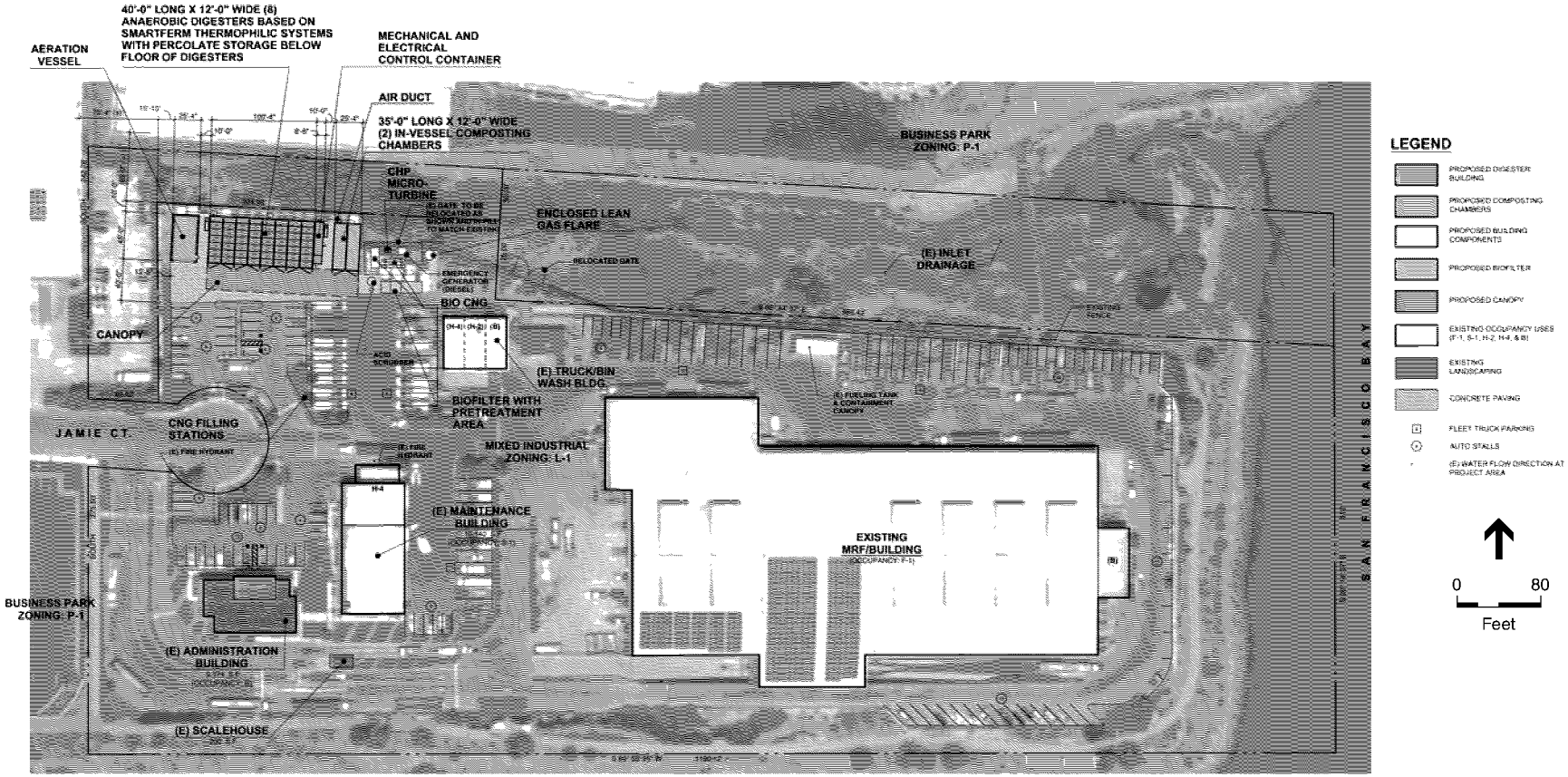
Blue Line Transfer, Inc. (Blue Line) is proposing to develop an Anaerobic Digestion (AD) Facility ("the project") that would be capable of processing 10,000 tons per year (tpy) of food waste and green waste into biogas (gaseous product generated by the degradation of organic matter under anaerobic conditions) that would be cleaned and converted into biogenic compressed natural gas (CNG). The project is expected to produce 56,000 diesel equivalent gallons (dge) per year of CNG, enough fuel for four to five CNG-fueled collection vehicles. The project would be located at the Blue Line Materials Recovery Facility (MRF) in the City of South San Francisco (see **Figure 1** and **Figure 2**). The South San Francisco Scavenger Company, Inc. CNG collection vehicle fleet is also located at the Blue Line MRF and would be fueled by the CNG produced by the project.



SOURCE: Wilson Engineering & Transportation Consultants, 2006; and ESA, 2012

Blue Line Biogenic CNG Facility . 120353

Figure 1
Project Location



SOURCE: JRM&A, 2012; and ESA, 2012

Blue Line Biogenic CNG Facility . 120353

Figure 2
Site Plan

Anaerobic Digestion Basics

Anaerobic digestion is the biological decomposition of organic matter with little or no oxygen. The anaerobic digestion process occurs naturally in marshes and wetlands. There are a variety of controlled systems where AD technology is currently utilized in the United States including wastewater treatment facilities and dairy manure digesters and co-digesters. In other countries (primarily in Europe), AD technology is utilized to process and treat municipal solid waste (MSW) to recover energy and to reduce the volume of solid waste that must be landfilled.

AD facilities that process solid waste produce biogas and digestate (liquids and solids). Within the digester, decomposition occurs in a four phases: hydroloysis, acidogenesis, acetogenesis, and methanogenesis resulting in methane, carbon dioxide, water and digestate/residuals. Digestate is the remaining solid and/or liquid residuals from the AD process.

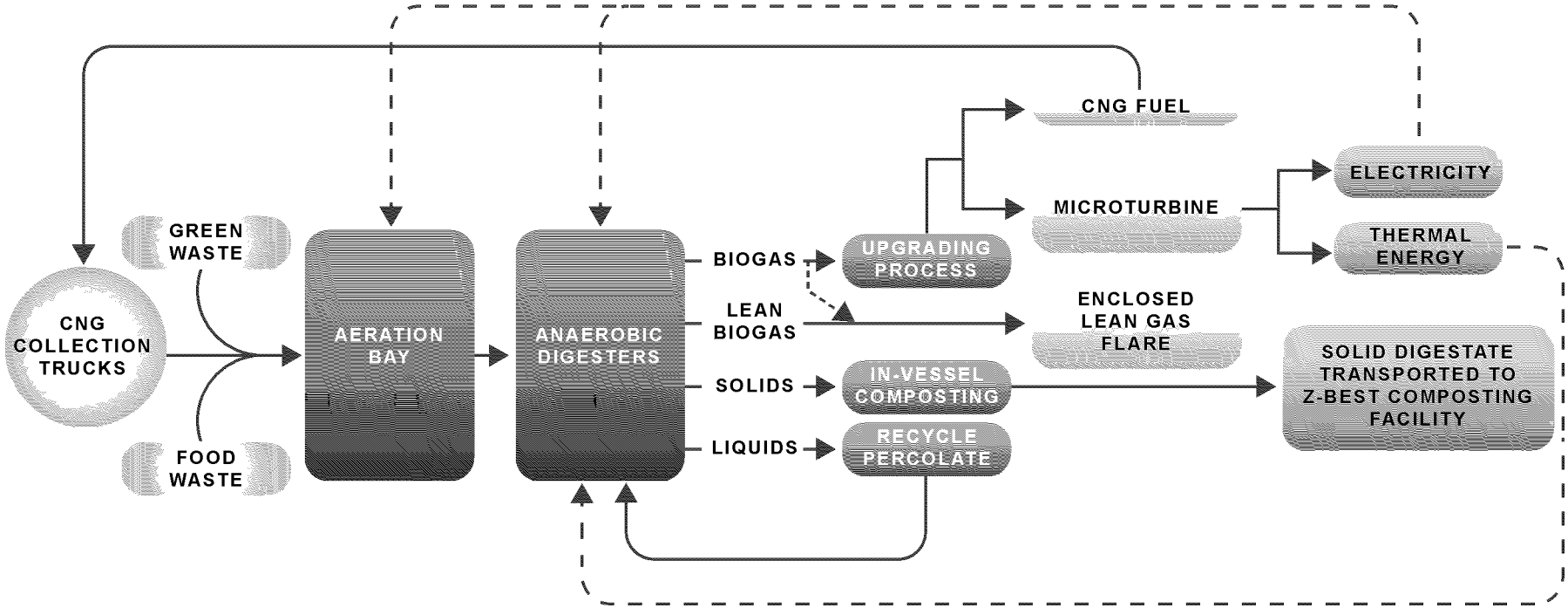
Project System Components

The AD system proposed for this project would be a dry fermentation process, using a Zero Waste Energy (ZWE) Smartferm design, where received feedstock is subject to an inoculated percolate to promote anaerobic digestion. The generated biogas is purified to pipeline quality CNG using a BioCNG system, provided by Cornerstone Engineering, and the compression and fueling system (also provided by Cornerstone) is designed to match directly up with the BioCNG system. Thermal and electrical energy would be provided by a Capstone microturbine, which is considered Best Available Control Technology (BACT) for air emissions. Electrical power would be supplied by a combination of the microturbine and grid-supplied power.

Process Description

The project operational process is summarized in the following steps, depicted in **Figure 3**, and described in greater detail below:

1. Source-separated organic waste from South San Francisco Scavenger Company CNG collection vehicles would be delivered to the project and placed in the 48-foot by 20-foot aeration bay;
2. The food waste and green waste would be blended together (approximately 50:50 ratio) in the aeration bay and loaded into the AD system for a 21-day dry fermentation process for the generation of biogas;
3. Biogas would be recovered and collected;
4. Biogas would be upgraded to fuel quality (SAE J1616 Standards);
5. The upgraded biogas would be compressed and stored as CNG fuel on site;
6. The CNG fuel would be used in the South San Francisco Scavenger Company CNG collection vehicles, which are fueled on site;
7. Digestate would be removed from the anaerobic digesters and placed in an in-vessel compost system (for four to five days) for ammonia removal and odor control;
8. The digestate would then be transported to the Z-Best Composting Facility in Gilroy.



SOURCE: ESA, 2012

Blue Line Biogenic CNG Facility . 120353

Figure 3
Operational Process Summary

The purpose of aeration (for up to one day) of the blended materials would be to initiate aerobic composting and rapidly increase the temperature of the material to 120 to 130°F. Then, heated liquid percolate would be circulated through the organics to initiate and promote anaerobic digestion. The liquid percolate would be the liquid by-product of previous AD cycles and serves to inoculate and increase the moisture content. The organics would then be loaded into the AD system for the recovery of biogas. Biogas would be recovered and sent to a BioCNG system that would upgrade the biogas to fuel quality (about 99% methane) and produce a waste gas of 40% methane. The waste gas would be used to operate a microturbine. The heat from the microturbine would be used to heat the percolate and maintain the organics at thermophilic (>122°F) temperatures. The fuel quality biogas would be compressed and stored and would be used to fuel waste collection vehicles. After a retention time of about 21 days, biogas generation would be exhausted and the digestate would be removed from the AD system and placed in an in-vessel composting chamber for 4 to 5 days. Air would be drawn through the material to strip ammonia, which could be an odor issue at the facility or at the composting facility receiving the digestate. This off-gas would be passed through an acid scrubber to remove ammonia, and then passed through a biofilter to oxidize emissions and minimize odors, trace ammonia, and volatile organic compounds (VOCs). Exhaust air streams that would be treated in the biofilter include aeration bay exhaust air, digester start-up and termination air, and acid scrubber exhaust air.

Notably, there would also be an enclosed lean gas flare (LGF), which would destroy low quality lean biogas (methane content below 20% and higher than 1%) generated towards the termination of the AD process cycle, when the majority of the biogas generation has been exhausted. The LGF would be intermittently operated 3 to 4 hours per digester termination, which would occur every 2.5 to 3 days.

Biogas Cleanup System

The biogas from this AD system would have a methane content of about 60% and would be generated at a rate of 3,000 cubic feet per ton of waste. The biogas cleanup system would use an Air Liquide MEDAL membrane system to produce a fuel flow that is approximately 99% methane. The published Low Carbon Fuel Standard (LCFS) pathways for biogas to CNG assume that a two-stage membrane system is used, which recovers 90% of the methane in the biogas. However, for small scale systems, the cost of a two-stage membrane is prohibitively expensive. Therefore, a one-stage membrane would be used for this system, which results in a carbon dioxide-rich waste gas that would be about 40% methane and used as fuel for a microturbine to provide energy to operate the facility.

Power Supply

The total electrical load of the project would be 132.7 kW, including the AD system, in-vessel composting system, biogas upgrading and fueling system, and the microturbine processor. There would also be a requirement for thermal energy to heat the AD system. The waste gas from the biogas cleanup system would be used in a microturbine to generate both electrical and thermal energy. The microturbine is about 28% efficient, and the biogas flow to the

microturbine would generate about 73.3 kW of electric power (55.3% of the total), as well as more than sufficient thermal energy to satisfy the process requirements. This is based on a stainless steel heat transfer module, rather than copper, due to concerns about corrosion. The balance of electrical requirements (59.4 kW) would be satisfied with grid supplied power. If the microturbine is down for repair or maintenance, grid-supplied power would provide all of the electricity and thermal energy to the system until the microturbine is operational.

Co-Product Generation

Solid digestate would be produced through the AD system, which would be taken to the Z-Best Composting Facility in Gilroy and would ultimately be used as a soil amendment. As stated above, the organic waste feedstock for this AD system would be a 50:50 blend of food and green waste, with an average moisture content of 60%. The weight of digestate would be about 10% less than the as-received feedstock.

Fuel Production

The annual CNG methane production is estimated at 8,585,676 cubic feet, which is expected to offset the use of approximately 56,000 gallons of diesel fuel.

Project Component Perspectives

Visual simulations of the front and back of the project components are depicted in **Figure 4** and **Figure 5**, respectively.

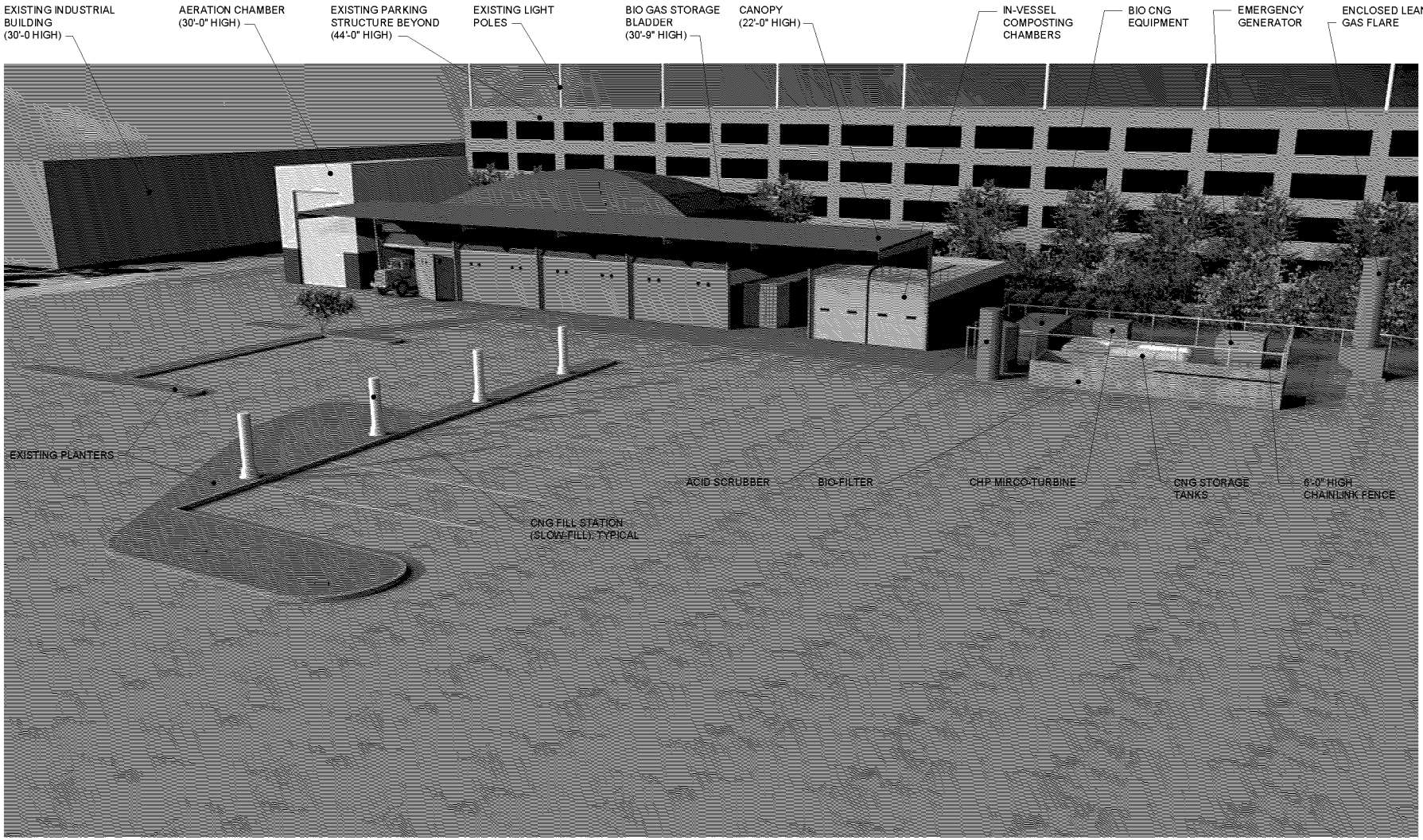
Project Construction Activities

The components of the system would be provided by three vendors, Zero Waste Energy for the anaerobic digestion component, Cornerstone Engineering for the biogas upgrading and fueling system and Capstone Turbine Corporation would furnish the microturbine for the renewable energy generation. A goal of the project is to demonstrate the construction of an entirely modular, small-scale, biofuel production facility with the system components designed to integrate and complement each other. Ease of construction with complementary system components that can easily be scaled up to larger facilities is a key goal of this project.

Construction activities associated with the project would be minimal based on the modular technologies incorporated into the design. Construction is anticipated to occur over a 2- to 3-month period, which would include disturbing an area of 0.44 acres and export of 2,230 cubic yards during preliminary earthwork and grading.

9. Surrounding Land Uses and Setting:

The project would be located on the Blue Line MRF site, which is bordered on the east and south by San Francisco Bay, and business parks to the north and west. The area surrounding the project continues to change (as envisioned in the East of 101 Area Plan) from prior heavy industrial and trucking uses toward a range of lighter industrial uses, as well as office and research uses.



SOURCE: JRM&A, 2012; and ESA, 2012

Blue Line Biogenic CNG Facility . 120353

Figure 4
Front Visual Perspective

SOURCE: JRM&A, 2012; and ESA, 2012

Blue Line Biogenic CNG Facility . 120353

Figure 5
Back Visual Perspective

The site is approximately 1.5 miles east of downtown South San Francisco and north of San Francisco International Airport. It is accessed by East Jamie Court, an existing two-lane street. Freeway access is most convenient from the East Grand Avenue exit, or the South Airport Avenue exit from US 101, or from the North Access Road exit from the US 101/I-380 interchange.

10. Project Objectives:

Project goals and objectives are to promote sustainability in the community, while addressing global environmental concerns, including:

- Help Blue Line meet Target 2.1 and Target 4.2 of their 2011 *First Sustainability Report*. Target 2.1 plans to convert 86% of the fleet to low/no emission technology by 2020, including seeking sources of biogenic CNG. Target 4.2 plans to increase the landfill diversion rate to 75% by 2020.
- Assist the City of South San Francisco to reduce their carbon footprint by 15% from a 2005 baseline by 2020.
- Assist in meeting CalRecycle Strategic Directive 6.1: Reduce the amount of organics in the waste stream by 50 percent by 2020.
- Support Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006, greenhouse gas (GHG) reduction measures related to the use of anaerobic digestion:
    - Measure E-3. Achieve a 33 percent renewable energy mix by 2020. (AD facilities produce biogas which is a renewable energy source.)
    - Measure RW-3. High Recycling/Zero Waste. (Anaerobic digestion is one of five subcategories listed under this measure.)
- Meet the Low Carbon Fuel Standard (LCFS), which requires a 10% reduction in the carbon intensity of fuel by 2020. The use of CNG fuel produced from biogas reduces the carbon intensity by 62% from diesel.
- Support mandated commercial recycling pursuant to AB 341 and local government plans.
- Provide digestate to be composted and used as a soil amendment, contributing to the reduction of CO_2 and agricultural water runoff.
- Commercialize a technology that can be replicated at a local level throughout the state.

11. Other Public Agencies whose Approval is Required (e.g., permits, financing approval, or participation agreement. Indicate whether another agency is a responsible or trustee agency):

The Solid Waste Facility Permit (SWFP) would need to be revised to accommodate the change in operations to add the AD Facility and CNG Production Facility at the Blue Line MRF. The Project proponent will need to file the application with the San Mateo County Environmental Health Services Division, acting as the Local Enforcement Agency (LEA), for the California Department of Resources Recycling and Recovery (CalRecycle). The LEA issues the SWFP Revision, and CalRecycle needs to concur with the SWFP Revision.

The CNG Production Facility would convert the excess waste gas from the biogas clean-up process in a microturbine to generate electricity to run the facility. The Bay Area Air Quality Management District (BAAQMD) will need to issue an Authority to Construct and a Permit to Operate (ATC/PTO) the microturbine. The BAAQMD considers microturbines to be BACT. In addition to the microturbine, the BAAQMD will need to issue ATC/PTO for the lean gas flare, the acid scrubber, and the biofilter.

Environmental Factors Potentially Affected

The proposed project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

☒ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☐ Cultural Resources	☒ Geology, Soils and Seismicity
☒ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials	☒ Hydrology and Water Quality
☐ Land Use and Land Use Planning	☐ Mineral Resources	☒ Noise
☐ Population and Housing	☐ Public Services	☐ Recreation
☐ Transportation and Traffic	☐ Utilities and Service Systems	☐ Mandatory Findings of Significance

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial study:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

Signature _____ Date Aug. 30, 2012

Susy Kalkin _____ For City of South San Francisco

Printed Name

Environmental Checklist

Aesthetics

Issues (and Supporting Information Sources):		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
1.	**AESTHETICS — Would the project:**				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

Discussion

The Blue Line MRF is on an 11. 7 acre waterfront site located on the southeast corner of the Point San Bruno Peninsula in the city of South San Francisco's East of 101 Planning Sub-area. San Francisco Bay is on the east side and the mouth of San Bruno Canal is on the south side. To the north of the MRF site is a biotech research campus with multiple three, four and five story office buildings and a parking structure (see **Figure 6** for an Aerial Overview of the area). Further to the northwest is Point San Bruno Hill, the highest point in the area.

Access to the site, about 1.5 miles east of State Highway US 101, is via East Grand Avenue, through a light industrial and commercial warehousing area that now is converting to research facilities and offices. The block-long side streets of Haskins Way and East Jamie Court dead-end at San Francisco Bay and the Blueline MRF, respectively, and link the MRF with East Grand Avenue. Both streets are wide, offering truck access to the range of uses in the vicinity. Warehouses are on the north side of East Jamie Court (see Photo 1, **Figure 7**), and to the south are two new office buildings with south facing waterfront views.

The MRF is an active facility with multiple buildings. Trucks move about, entering and exiting, transferring loads, with people and equipment engaged in truck maintenance, bin washing and material sorting. The area is kept clean, landscaping and pedestrian walks green the entry area and the perimeter is landscaped. Most of the site is surrounded by an 8 foot wall, providing a buffer to the Bay Trail which circumnavigates three sides of the site. The western perimeter near the entrance has a wrought iron fence that allows views into the site and out to the Bay.

SOURCE: Microsoft Virtual Earth, 2012; and ESA, 2012

Blue Line Biogenic CNG Facility . 120353

Figure 6
Aerial Overview and Photograph Locations

PHOTOGRAPH 1. Looking northeast across Jamie Court. Genentech parking structure becomes visible from behind nearest building (#441), as does the site of the proposed Anaerobic Digester. MRF is visible at the end of the road.

PHOTOGRAPH 2. Looking southeast to the Blue Line administrative building (teal color) and maintenance shop (blue) from south sidewalk of Jamie Court near the entrance to the MRF.

SOURCE: ESA, 2012

Blue Line Biogenic CNG Facility . 120353

Figure 7
Photographs from East Jamie Court

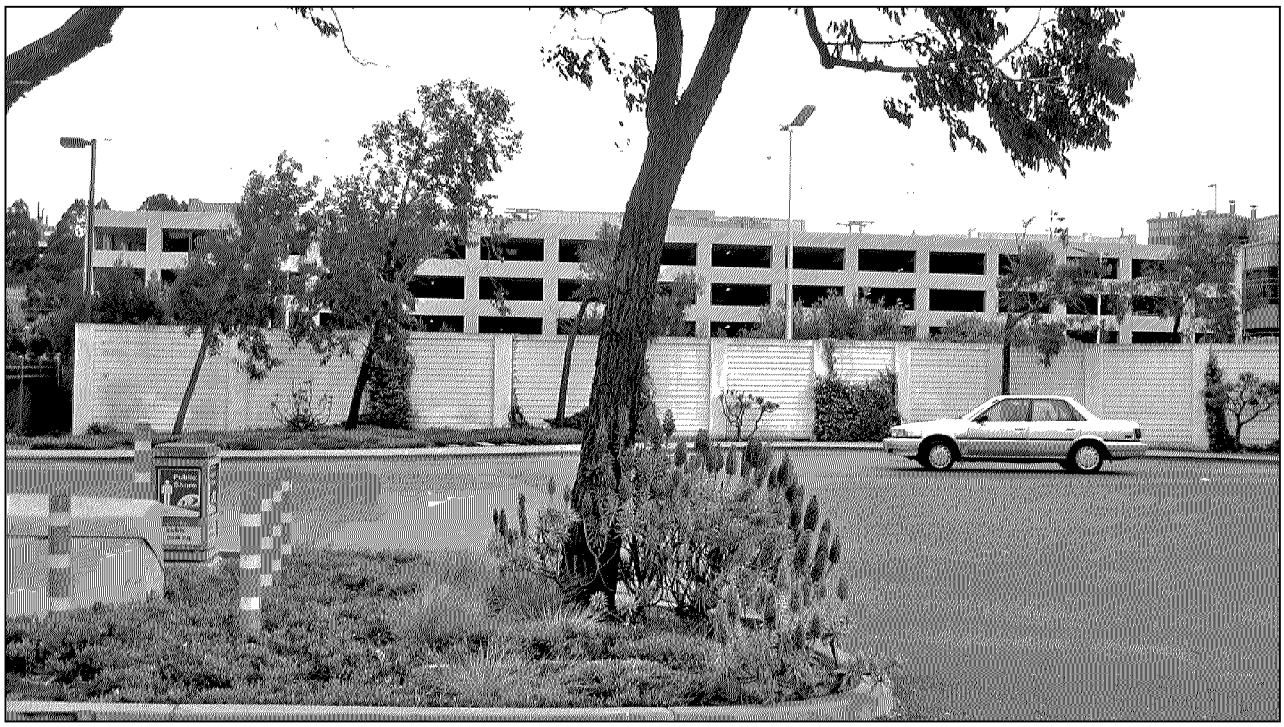
From the East Jamie Court entrance the most visible building is the Administration Building on the southwest corner of the site (as seen in Photo 2, **Figure 7**). It is approximately 10,000 square feet and 40 feet tall. Adjacent to it is the Maintenance Building, a two story building also about 10,000 square feet in size. The truck Wash Building is also approximately 40 feet tall, cubicle in shape and about 3,000 square feet near the center of the northern perimeter of the site. The Wash Building is directly east of the proposed AD Facility and approximately the same height, so this existing building can be used to approximate the visual effects of the proposed facility. The largest of the buildings is the MRF, where trucks unload materials and green waste for recovery; the building is approximately 100,000 square feet and is approximately 40 feet high. Trucks are routed in a one way traffic circle around the perimeter of the site to transfer the waste and exit back out onto East Jamie Court.

The San Francisco Bay Trail South of the Facility

The San Francisco Bay Trail follows the shoreline from west of the MRF and continues around the outside of the southern and eastern shoreline edges of the facility where it crosses a wetland area to the north and continues northward past the neighboring biotech campus. Views across the water are present along this entire length. To the south, across the inlet of the San Bruno Canal is the San Francisco Airport, about 1.5 miles away. Southeast are distant views across the water to the San Mateo Bridge and to the east are open water views with the East Bay hills in the distance. The water draws the attention of most Bay Trail viewers.

At the main entrance to the MRF on East Jamie Court is a designated Bay Trail parking area, trailhead and linkage to the trail (see Photo 3, **Figure 8**). Looking north across East Jamie Court from the public parking area is the perimeter wall surrounding the MRF and above that is the parking structure that overlooks the MRF site. The proposed AD Facility would be in front of the parking structure, nearly as long and about two-thirds the height of the existing structure. The proposed site is approximately 200 feet away from the Bay Trail parking lot.

Similar, though more distant views are available from the Bay Trail itself, which follows the shoreline some 450 to 500 feet to the south. Views of the site are northward across the currently unoccupied parking lot that is just west of the MRF Administration Building (see Photo 4, **Figure 8**). The neighboring parking structure is plainly visible and vegetation filters views of the base of the structure. The wrought iron fence that allows views into the MRF site is also visible to the right. Views like this are available for approximately 300 feet along the Bay Trail, until the Administration Building and the opaque perimeter wall prevent any further viewing into the MRF. The Bay Trail continues to the east around the MRF where it begins to head northward. From locations near the MRF immediate views are focused on perimeter landscaping and scenic open water views, the San Mateo Bridge, and the distant East Bay hills.



PHOTOGRAPH 3. Looking north from the Bay Trail Parking Area at the entrance to the Blue Line MRF to the Genentech parking structure. The proposed Anaerobic Digester will be placed in front of the parking structure.

PHOTOGRAPH 4. Looking north from the Bay Trail on the southern shoreline looking towards the entrance of the MRF, the site of the proposed Anaerobic Digester and the Genentech parking structure.

Blue Line Biogenic CNG Facility . 120353

SOURCE: ESA, 2012

Figure 8

Photographs from the Bay Trail South of the Facility

The San Francisco Bay Trail East of the Facility

The Bay Trail emerges from the back side of the MRF to become visible from multiple buildings of the biotech research campus (see Photo 5, **Figure 9**). The Trail briefly parallels the northern perimeter wall of the MRF and is directly aligned with the narrow side of the proposed AD Facility which would be 600 to 800 feet away from the trail. From this perspective the site is only partially visible because of intervening vegetation.

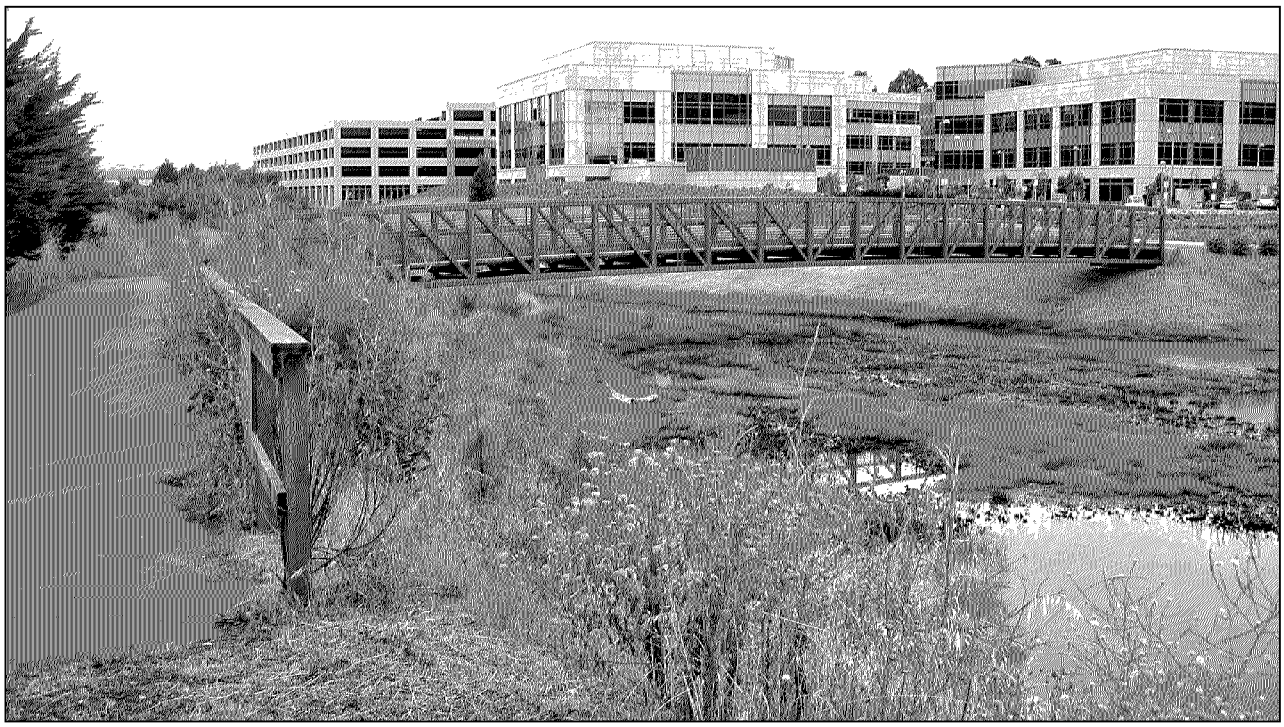
The Bay Trail becomes slightly elevated as it crosses a bridge over a small wetland and offers more direct views in the direction of the proposed AD Facility (see Photo 6, **Figure 9**). The parking structure is in the center right of the photo and the Wash Building is in the center-left. The Wash Building is the approximate height of the proposed structure that would sit directly to the left of it (in Photo 6). Just above the bridge in the biotech campus are designated parking spaces for access to the Bay Trail. From the Bay Trail parking area the AD Facility would be approximately 600 feet away and would be nearly the same height (see Photo 7, **Figure 10**) as the Wash Building in teal and blue. Vegetation and foreground grades would screen lower portions of views from the Bay Trail parking area. The total distance of the Bay Trail east of the facility that would be exposed to any partial views of the AD Facility would be approximately 600 linear feet.

The Biotech Research Campus

Two buildings and the parking structure have views in the direction of the proposed AD Facility. While there are many more buildings in the campus, two of those buildings have facades facing the proposed AD Facility that are not blocked by other buildings. These two buildings are approximately 200 and 800 feet away from the proposed AD Facility. Currently these buildings have views of the existing 100,000 square foot MRF Building, the Wash Building, the Maintenance Building, and the more distant Administrative Building.

The Parking Structure and Vegetative Band

The parking structure is four stories tall with rooftop parking on the fifth level. The exterior elevation alternates between solid walls that enclose the cars up to waist height and openings that open to the weather. Between the parking structure and the proposed AD Facility is a vegetative band with large woody shrubs and trees that is approximately 50 feet wide which acts as a visual buffer between the adjacent campus facilities and the Blue Line MRF. Views out of the structure towards the MRF vary depending upon the level, though consistently one must be near the southern edge of the structure to see anything other than the concrete structure and cars. From the ground level views southward out of the parking structure are nearly completely filled with green vegetation. From the second level, approximately half of the views are still filtered by the taller vegetation. From the third level views become open with the shoreline and Bay in the distance and the MRF in the middleground. Looking down, vegetation is in the foreground.



PHOTOGRAPH 5. Looking west from the Bay Trail at the northeast corner of the MRF towards the vegetative buffer at the southern edge of the parking structure (bldg on left). The proposed Anaerobic Digester may be partially visible behind the tree to the far left.

PHOTOGRAPH 6. From the center of the bridge looking west. The wash building (left of center) is of similar height and would be in the foreground of the proposed Anaerobic Digester. As with the parking structure to the right, more distant features would recede, become closer to the horizon and appear smaller.

SOURCE: ESA, 2012

Figure 9

Photographs from the Bay Trail East of the Facility

PHOTOGRAPH 7. From the Bay Trail Parking Area looking southwest towards the MRF maintenance shop and wash building. Anerobic Digester would be in front of the white office buildings in the background.

PHOTOGRAPH 8. Looking south through a gap between the Genentech office building and parking structure (right) to the wash building, which is a good indicator of height for the proposed Anaerobic Digester. The proposed facility would be just out of view behind the parking structure.

SOURCE: ESA, 2012

Figure 10
Photographs from the Biotech Research Campus

The East Jaime Court Property to the West

The business park to the west and adjacent to the Blueline MRF property would be the closest business to the project (approximately 80 feet). However, the façade facing the project does not have any windows and views from the business park parking lot would primarily be blocked by the existing concrete wall. Upper portions of the Aeration Chamber would likely be viewable over the concrete wall, with views filtered by intervening tree landscaping. The AD Facility would be located in the northwestern corner of the existing MRF, just south of the neighboring parking structure (see **Figure 6** above for location). The maximum height of the proposed AD Facility is 31 feet, while nearly half the length of the structure is only 20 feet high. The parking structure to the north is approximately 40 feet high and provides a visual backdrop to views of the AD Facility from the south and southwest (see **Figure 11**, Elevations). The Wash Building is of similar height just east of the proposed AD Facility and both the Maintenance Building and the Administration Building are of similar height though considerably larger.

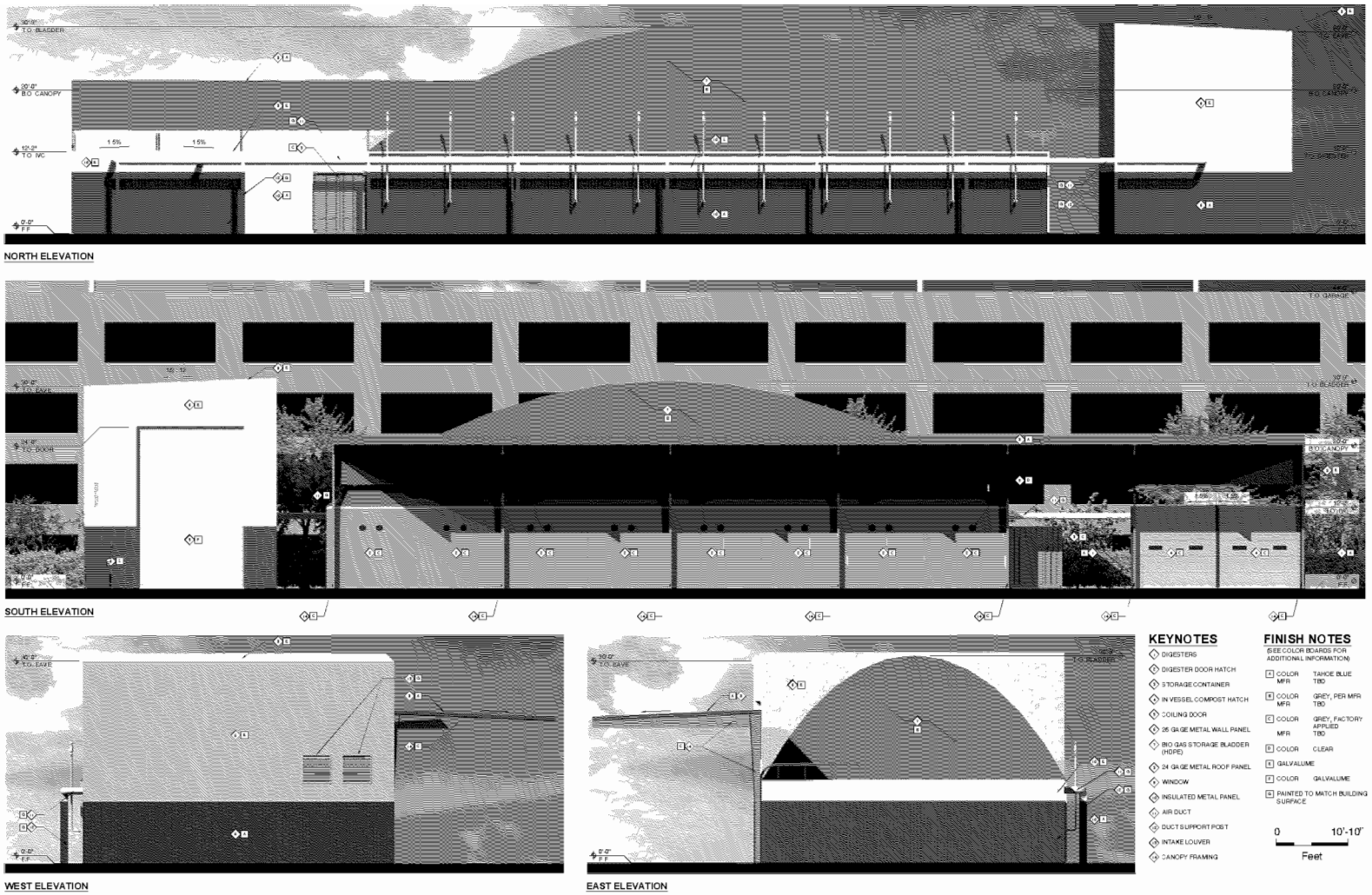
The proposed AD Facility would be set back from the terminus of East Jamie Court by approximately 150 feet so that distant views from the west would be screened by the warehouse structure and landscaped parking lot also to the west. The approximately 50 foot wide vegetative buffer along the northern border of the property and along the south side of the parking structure would also filter views for those looking out of the ground floor of the parking structure.

The environmental checklist issues are discussed below.

a) **No Impact.** Views to San Francisco Bay waters from the Bay Trail would remain unaffected since the AD Facility would be on the land side of any Bay Trail views. When viewed from the water, the AD Facility would barely be visible, and only from narrow view corridors directly south and directly east of the AD Facility. When visible within these narrow corridors, the AD Facility would be lower than existing buildings around it, including the parking structure, the MRF, the Administration Building and various surrounding buildings. There are no designated scenic vistas in the area, and therefore there is no impact.

b) **No Impact.** There are no state, county or local scenic highways in the vicinity. Since the site is currently a paved parking area, no damage would occur to any trees, rock outcroppings or historic buildings. There is no impact associated with resources surrounding scenic highways.

c) **Less than Significant.** The proposed AD Facility would be located in a paved corner of the existing MRF between a warehouse, a larger parking structure and a utilitarian Wash Building, and as such the visual character of the immediate site is that of an active workplace, with a moderate level of visual quality. The placement of the proposed AD Facility among existing buildings of similar scale and matching the MRF exterior paint palette limits its visibility from many public perspectives. It would not be visible from the western half of East Jamie Court, from most of the Bay Trail, from most of the business park to the west, and most of the biotech research facility. The places where it would be visible from the Bay Trail include two short windows; one to the south and one directly east. Much of the existing landscaping would also serve to screen views of the proposed AD Facility, including from



SOURCE: JRM&A, 2012; and ESA, 2012

Blue Line Biogenic CNG Facility . 120353

Figure 11

Elevations of Blue Line Anaerobic Digester Facility

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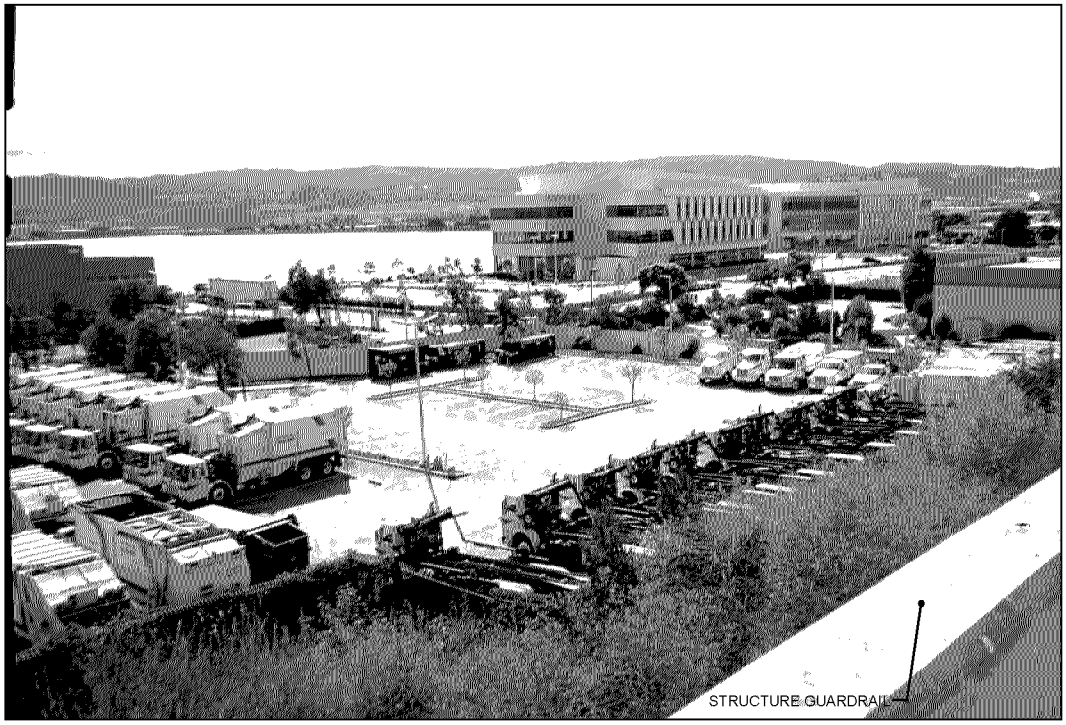
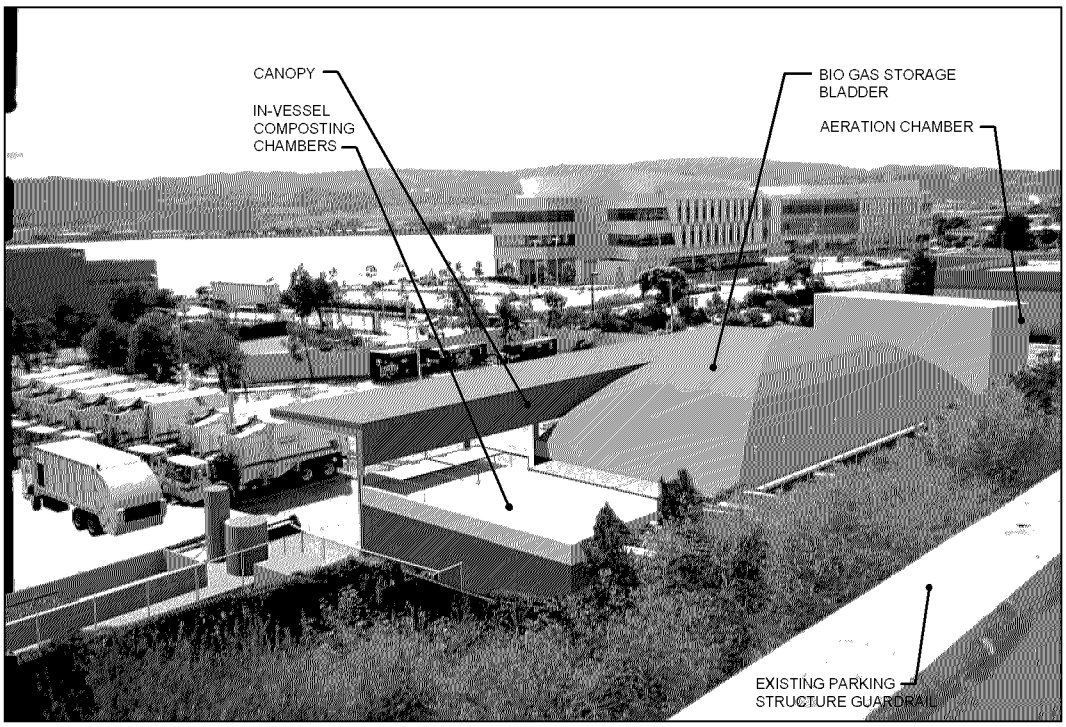
the Bay Trail parking area on East Jamie Court, which is the closest public view of the proposed project. Existing vegetation would also serve to screen views from the lower levels of the neighboring parking structure. As seen in **Figures 12** and **13,** downward views from the parking structure would change some of the parking lot views into rooftop views.

Construction of the proposed AD Facility would convert some of the existing truck parking into a structural element within the site, and there would be an associated minor visual change to the visual character of the area. This visual change would not substantially diminish the visual quality of the site or the surroundings because the primary visual qualities of the site would still remain; views to the Bay would remain; the Bay Trail would offer two glimpses of the new structure while still providing unencumbered views of the Bay. Sensitive receptors would also have glimpses of the new structure from acute angles, though vegetation is largely already in place to continue screening and could be managed to further support that objective. As such, the Design Review Board has indicated that additional landscaping will be required in areas where screening is not adequate and to maintain and/or enhance the visual quality of the site. There would be a perceptible change at the site with the construction of a new structure, but it would be consistent with the existing industrial visual character of the site and would not be a substantial degradation of the visual quality of the site or its surroundings; therefore, the impact would be less than significant.

d) **Less than Significant.** The project includes lighting on the buildings and parking areas. All lighting would be required to conform to the City standards on outdoor lighting. All lighting would be fully cutoff and positioned to minimize off-site impacts by being directed inward towards the site and downward with appropriate shielding and away from the Bay and Bay Trail. Exterior building and parking lot lighting for the new AD Facility would be similar to the lighting that already exists in the parking areas. In addition to lighting, the project would include an enclosed flare to combust low quality biogas. The flare could potentially operate during daytime or nighttime hours; however, it would be enclosed in order to prevent any visual light or glare impacts. The project would not significantly affect nighttime views in the area and therefore the impacts would be minimal and less than significant.



EXISTING. Looking southwest from the top eastern corner of the parking structure, from approximately 40 feet in elevation.



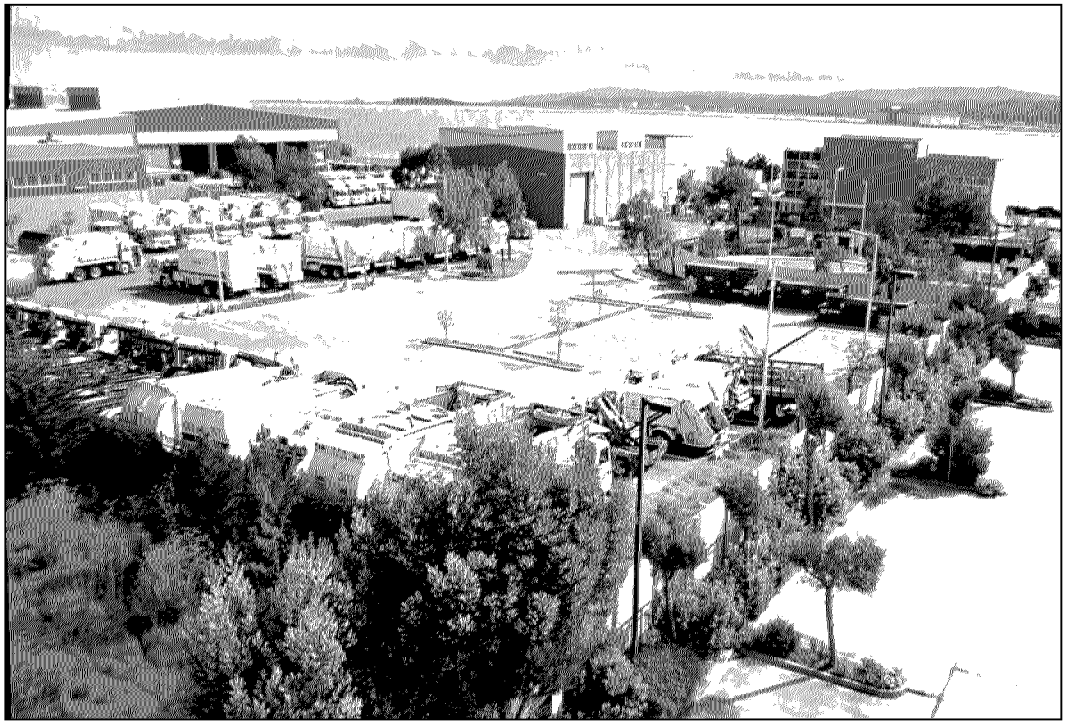
PROPOSED. Composting Chambers and overall canopy visible in foreground, domed Biogas Storage Bladder to the right and rectilinear Aeration Chamber in background.

SOURCE: JRM&A, 2012; and ESA, 2012

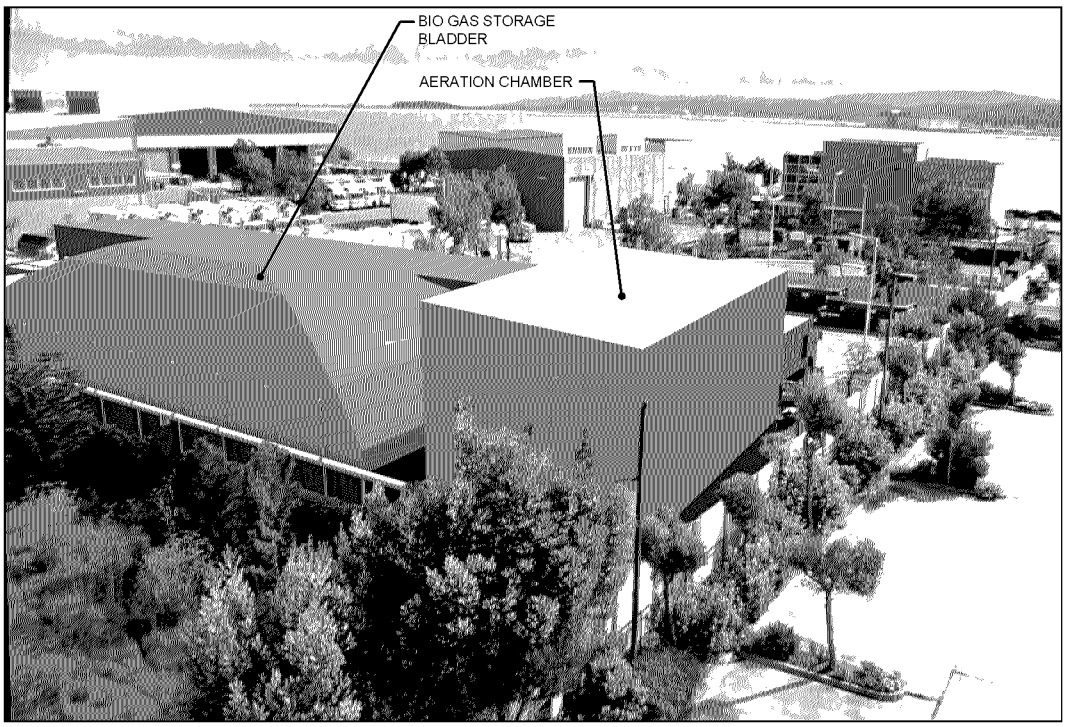
Blue Line Biogenic CNG Facility . 120353

Figure 12

Simulation A – From the Top of Parking Structure



EXISTING. Looking southeast from the top western corner of the parking structure, from approximately 40 feet in elevation.



PROPOSED. Rectilinear Aeration Chamber in foreground and domed Biogas Storage Bladder to the left (both approximately 31 feet tall).

Blue Line Biogenic CNG Facility . 120353

SOURCE: JRM&A, 2012; and ESA, 2012

Figure 13

Simulation B – From the Top of Parking Structure

Agricultural and Forest Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
2. AGRICULTURAL AND FOREST RESOURCES — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:**				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion

a-b) **No Impact.** The project site is not designated by either the General Plan or the Zoning Ordinance as agricultural. There is no Williamson Act contract on the property. The proposed project would not affect farmland or agricultural uses in any way. The project would, therefore, have no impact on farmland or agricultural activities of any kind.

c-e) **No Impact.** The project site is not zoned or designated for forestry or timberland uses. Therefore, there would be no impacts related to these resources.

Air Quality

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
3. AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:**				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☒	☐	☐

Discussion

a) **Less than Significant.** The project site is within the San Francisco Bay Area Air Basin (Bay Area), which is currently designated as a nonattainment area for state and national ozone standards, state particulate matter (PM10 and PM2.5) standards, and federal PM2.5 (24-hour) standard. The BAAQMD's *2010 Clean Air Plan* (BAAQMD, 2010) is the applicable Clean Air Plan that has been prepared to address ozone nonattainment issues.

If a City's General Plan is consistent with the most recently adopted Clean Air Plan, a project that is consistent with the General Plan's land use designation is considered consistent with applicable air quality plans and policies.

As stated in Section 10, Land Use and Planning, the proposed project would be consistent with the General Plan land use designations and zoning for the project site. In addition, the City's General Plan is consistent with the Clean Air Plan because data and projections from the General Plan are incorporated into the Clean Air Plan. Development of the project would not interfere with population and vehicle-miles-traveled (VMT) projections used to develop the 2010 Clean Air Plan planning projections as it would not increase the population of the area and any change in VMT traveled would be negligible[1]. Furthermore, less ozone precursors and less particulates would be emitted from the combustion of CNG than diesel (Edgar and Associates, 2012a). Therefore, the proposed project would result in

[1] Some food and greenwastes are already being shipped to Z-Best in Gilroy.

a less-than-significant impact because it would not substantially conflict with the region's air quality management plan.

b) **Less than Significant with Mitigation.** The BAAQMD adopted new thresholds of significance on June 2010 and new *CEQA Air Quality Guidelines* (BAAQMD, 2011) for the analysis of criteria air pollutants and toxic air contaminants (TACs). Notably, the thresholds BAAQMD adopted were called into question by a minute order issued January 9, 2012 in California Building Industry Association v. BAAQMD, Alameda Superior Court Case No. RGI0548693. The minute order states that "The Court finds [BAAQMD's adoption of thresholds] is a CEQA project, the court makes no further findings or rulings." Subsequently, on March 5, 2012, the judge in the case issued a final decision and judgment which ruled that the BAAQMD CEQA Guidelines constitute a project under CEQA and that the District must "set aside all approvals in [the resolution approving the Guidelines] and … not disseminate these or any new approvals of officially sanctioned air quality thresholds of significance until the District fully complies with CEQA." The claims made in the case concerned the CEQA impacts of adopting the thresholds, i.e. how the thresholds would affect land use development patterns, and petitioners argued that the thresholds for Health Risk Assessments encompassed issues not addressed by CEQA. Those issues are not relevant to the scientific soundness of the BAAQMD's analysis of what levels of pollutants should be deemed significant. The thresholds will not cause any impacts in terms of land use development patterns insofar as this project is concerned, because the project would not change the land use at the site. Accordingly, ESA will use the thresholds and methodologies (as deemed appropriate for this project) from the 2011 BAAQMD *CEQA Air Quality Guidelines* to determine the potential impacts of the project on the existing environment.

Construction

The Bay Area Air Basin experiences occasional violations of ozone and particulate matter (PM10 and PM2.5) standards. Thus, during the construction phase of any given project basin wide violations can occur. The proposed demolition of the parking lot and the subsequent redevelopment into the AD Facility would result in emissions primarily from construction related vehicles. Construction would involve use of equipment and materials that would emit ozone precursor emissions (i.e., reactive organic gases or ROG, and nitrogen oxides, or NOx). Construction activities would also result in the emission of other criteria pollutants from equipment exhaust, construction-related vehicular activity, and construction worker automobile trips. Emission levels for these activities would vary depending on the number and type of equipment, duration of use, operation schedules, and the number of construction workers. Criteria pollutant emissions of ROG and NOx from these emission sources would incrementally add to the regional atmospheric loading of ozone precursors during project development. Emissions were estimated using the CalEEMod model and are depicted below in **Table 1**. Additional assumptions and information are included in **Appendix B**.

TABLE 1
PEAK DAY CONSTRUCTION-RELATED POLLUTANT EMISSIONS (Pounds/Day)[a]

Year	ROG	NOx	CO	SO_2	Exhaust PM10[b]	Exhaust PM2.5[b]
2013 (Unmitigated Emissions)	3	18	15	<1	8	1
BAAQMD Construction Threshold	54	54	None	None	82	54
Significant Impact?	No	No	No	No	No	No

a. Emissions were modeled using CalEEMod and assumes pavement removal and export of approximately 2,230 cubic yards of excavated soils, as well as the substantially modular development of the project. Construction activities were assumed to occur for a duration of three months. Additional information is included in Appendix B.
b. BAAQMD's construction-related significance thresholds for PM10 and PM2.5 apply to exhaust emissions only and not to fugitive dust.

Although the project would not generate emissions during construction that would exceed the BAAQMD thresholds, due to the non-attainment status of the air basin with respect to ozone, PM10, and PM2.5, the BAAQMD recommends that projects implement a set of Basic Construction Mitigation Measures (BAAQMD, 2011) as best management practices (BMPs) regardless of the significance determination. Implementation **Mitigation Measure AIR-1** would reduce impacts to a less-than-significant level.

Mitigation Measure AIR-1: During active construction, the applicant shall require construction contractors to implement all the BAAQMD's Basic Construction Mitigation Measures, listed below:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day, or more often if needed to control fugitive dust.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

8. Post a publicly visible sign with the applicant's telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Operations

The proposed project would generate pollutant emissions from operations through the following sources: on-road mobile, a front end loader, the microturbine energy generation, the lean gas flare, and composting. These sources are described in more detail below.

For on-road mobile sources, the project would result in changing yardwaste pickup to a weekly cycle (three daily trucks) rather than the existing biweekly cycle (two daily trucks), with the additional truck traveling an average of 30 miles per day. For offroad equipment, the front end loader is assumed to be 125 horsepower and would operate 3.5 hours per day, 5 days per week. The microturbine would generate electric and thermal power for the system, approximately 73.3 kW of the total 132.7 kW required for the system. The lean gas flare is only operated for 3 to 4 hours per digester termination which occur every 2.5 to 3 days. Emission factors for these sources were incorporated from the updated information for the CEC grant (Edgar and Associates, 2012a) and stationary source emissions specifications (Edgar and Associates, 2012b). Volatile organic compounds (VOCs, also called reactive organic gases [ROG]) from composting of the digestate were determined using the California Integrated Waste Management Board (CIWMB) factor for windrows (CIWMB, 2007), with a 90% reduction applied due to pile enclosure and pumping the off-gas to the biofilter. Operational emissions were estimated and are depicted below in T**able 2**. Additional assumptions and information are included in **Appendix B**. As shown in Table 2, long-term operational emissions of the project would be less than significant.

TABLE 2
PEAK DAY OPERATION-RELATED POLLUTANT EMISSIONS (Pounds/Day)[a]

Sources	ROG	NOx	CO	PM10	PM2.5
On-road Mobile (CNG Trucks + Employees)	0	0	0.4	0.1	0.1
Off-road Equipment (Front End Loader)	0.2	1.9	1.2	0.1	0.1
Microturbine	0.2	0.8	0.7	0	0
Composting	6.3	0	0	0	0
Lean Gas Flare	0	0.8	1.2	0	0
Total Pollutants	7	4	4	0	0
BAAQMD Operational Threshold	54	54	None	82	54
Significant Impact?	No	No	No	No	No

a Assumptions and specific emission factors are included in Appendix B.

c) **Less than Significant with Mitigation.** According to the BAAQMD, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant

adverse air quality impacts. Notably, if a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Alternatively, if a project does not exceed the identified significance thresholds, then the project would not be considered cumulatively considerable and would result in less-than-significant air quality impacts. As discussed for criteria "b" above, the project would result in less than significant construction emissions with mitigation incorporation, and less than significant operational emissions.

Mitigation Measure: Implement Mitigation Measure AIR-1.

d) **Less than Significant.** The project would be located at an existing parking area at the Blue Line MRF site, adjacent to existing industrial and office uses. In regards to short-term construction and long-term operations, the project is not expected to have any negative health impacts on the local population, given local meteorological conditions, the considerable distance to the nearest residents, and the transient nature of the employees of businesses in the surrounding area. In addition, as described in the CEC grant application (Edgar and Associates, 2012a), the microturbine specified for use in this project, a Capstone C65 microturbine designed to operate on digester gas, has been permitted for similar use at locations within both the BAAQMD and South Coast Air Quality Management District (SCAQMD), at both landfills and wastewater treatment facilities. This microturbine has been certified under the California Air Resources Board Distributed Generation Certification Program. Although this does not constitute an air pollution permit, both the BAAQMD and SCAQMD consider this type of microturbine with a Distributed Generation Certification to constitute BACT. In previous permitting efforts – in both the BAAQMD and SCAQMD – assessments of the health impacts of TACs have revealed that the emissions from the Capstone C65 microturbine, when equipped with the proper emissions control devices (such as those that would be employed with this project and required for a Permit to Operate by BAAQMD) do not create an unacceptable cancer risk or non-cancer chronic hazard to the public.

e) **Less than Significant With Mitigation.** Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. Known as odor fatigue, a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency and intensity of the source; wind speed and direction; and the sensitivity of receptors. Odor impacts should be considered for any proposed new odor sources located near existing receptors, as well as any new sensitive receptors located near existing odor sources. The storage and transfer of greenwaste and foodwaste materials during anaerobic digestion and composting

processes of the project would be potential sources of odor at the adjacent land uses. Without adequate procedures and controls the odors from the feedstock materials could generate very strong odors. Notably, BAAQMD has several rules regarding odors (Regulation 1-301 (Public Nuisance) and Regulation 7 (Odorous Substances)) that the project must meet. In addition, composting facilities, which are regulated by CalRecycle, are required to have an Odor Impact Minimization Plan (OIMP) as required by law and codified in the California Code of Regulations, Title 14 (Natural Resources), Division 7 (CIWMB), Chapter 3.1 (Compostable Materials Handling Operations and Facilities Regulatory Requirements), Article 3 (Report of Facility Information), Section 17863.4 (Odor Impact Minimization Plan). Although the project is not considered a composting facility, the compostable materials handling operations of the project would require an OIMP. The OIMP includes two major components, a Complaint Response Protocol and an Odor Complaint Reporting Format. The Odor Complaint Response Protocol describes the procedures to follow upon receiving a complaint. The protocol includes measures to identify the odor and requires appropriate adjustments to storage, process control, and facility improvements to reduce odors. Implementation of **Mitigation Measure AIR-2** would apply odor control measures to the project, which would reduce impacts to a less-than-significant level.

> **Mitigation Measure AIR-2:** The applicant shall develop and comply with an Odor Impact Minimization Plan (OIMP) pursuant to the requirements of the California Code of Regulations, Title 14, Division 7, Chapter 3.1, Article 3, Section 17863.4. Once complete, the OIMP shall be submitted to the LEA for a 30-day period for review and comment.

References

Bay Area Air Quality Management District (BAAQMD), 2010. *Bay Area 2010 Clean Air Plan*, adopted September 15, 2010. Available at http://www.baaqmd.gov.

Bay Area Air Quality Management District (BAAQMD), 2011. *CEQA Air Quality Guidelines*, revised May 2011. Available at http://www.baaqmd.gov.

California Integrated Waste Management Board (CIWMB), 2007. *Emissions Testing of Volatile Organic Compounds from Greenwaste Composting at the Modesto Compost Facility in the San Joaquin Valley*. October 31, 2007, revised May 2008.

Edgar and Associates, 2012a. *CEC Grant Application – Updated Attachments G and I*, revised July 9, 2012.

Edgar and Associates, 2012b. *South San Francisco Dry Anaerobic Digestion Project Preliminary Emissions Specifications*. June 21, 2012.

Biological Resources

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
4. BIOLOGICAL RESOURCES — Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion

a-c) **No Impact.** The project site is currently comprised of paved parking lot for the Blue Line MRF. As such, development of the project would not have any effect on candidate, sensitive, or special status species. In addition, there is no riparian habitat or other sensitive natural community onsite. Finally, the project site is largely impervious and contains no wetlands as defined by the Clean Water Act. Implementation of the project would have no impact on these biological resources.

d) **Less than Significant with Mitigation.** The area north of the project site (between the Blue Line MRF property boundary and the existing parking structure) could be suitable habitat for nesting birds due to the presence of trees. Breeding birds are protected under Section 3503 of the California Fish and Game Code (the Code), and raptors are protected under Section 3503.5. In addition, both Section 3513 of the Code and the Federal Migratory Bird Treaty Act (16 USC, Sec. 703 Supp. I, 1989) prohibit the killing, possession, or trading of migratory birds. Finally, Section 3800 of the Code prohibits the taking of non-game birds, which are defined as birds occurring naturally in California that are neither game birds nor

fully protected species. Nesting birds near the project site could be negatively impacted by project construction and increased noise associated with project operations. These potential impacts would be reduced to less-than-significant levels with the implementation of **Mitigation Measure BIO-1**.

> **Mitigation Measure BIO-1:** Prior to construction during the months of March to August, a qualified biologist shall conduct pre-construction surveys to locate any active nests no more than 14 days prior to these construction activities. These nesting bird surveys shall be performed in the project area and surrounding 500 feet, in coordination with the City. Construction activities performed between September and February would avoid the general nesting period for birds and therefore would not require pre-construction surveys.
>
> If active nests are observed on the project site or surrounding area, the project applicant shall establish buffer zones around the nests, with the size to be determined in consultation with California Department of Fish and Game (usually 100 feet for perching birds and 300 feet for raptors). No ground-disturbance activities shall occur within this buffer zone until young have fledged or the nest is otherwise abandoned.
>
> If work during the nesting season stops for 14 days or more and then resumes, then nesting bird surveys shall be repeated, to ensure that no new birds have begun nesting in the area.

e) **No Impact.** The project site contains an existing parking lot that has little to no biological resource value. The project, therefore, would not conflict with any local policies or ordinances protecting biological resources. Implementation of the project would have no impact.

f) **No Impact.** The project site is not covered by a Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, the project would not result in impacts related to this criterion.

Cultural Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
5.	**CULTURAL RESOURCES — Would the project:**				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Discussion

a-d) **No Impact.** As determined in the *South San Francisco Scavenger Company Materials Recovery Facility and Transfer Station EIR* (City of South San Francisco, 1998), since the project site was entirely under water until about 1970, and since the project site is currently a parking lot that had previously been disturbed through filling, grading, and paving, there is little likelihood that the site contains any significant cultural resources. Therefore, the project would result in no impact to these cultural resources.

References

City of South San Francisco, 1998. *South San Francisco Scavenger Company Materials Recovery Facility and Transfer Station EIR*. SCH# 98051024, October 28, 1998.

Geology, Soils, and Seismicity

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
6. GEOLOGY, SOILS, AND SEISMICITY — Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Discussion

ai) **No Impact.** The site is located in a seismically-active region of California that is part of the Coast Ranges geomorphic province. This region is characterized by northwest trending valleys and mountain ranges running subparallel to the San Andreas Fault Zone. The closest active fault to the project site is the San Andreas fault which is located approximately 7 miles to the southwest (Jennings, 1994). The San Andreas fault and other regional active faults, including the Hayward and Calaveras faults, pose the greatest threat of significant damage in the Bay Area according to the USGS Working Group (USGS, 2003). These three faults exhibit strike-slip orientation and have experienced movement within the last 150 years.[2]

[2] A strike-slip fault is a fault on which movement is parallel to the fault's strike or lateral expression at the surface.

The Alquist-Priolo Earthquake Fault Zoning Act requires the delineation of zones by the California Department of Conservation, Geological Survey (CGS, formerly known as the California Division of Mines and Geology [CDMG]) along sufficiently active and well-defined faults.[3] The purpose of the Act is to restrict construction of structures intended for human occupancy along traces of known active faults. Alquist-Priolo Zones are designated areas most likely to experience surface fault rupture, although fault rupture is not necessarily restricted to those specifically zoned areas. The project site is not located in an Alquist-Priolo Earthquake Fault Zone nor is it located on or immediately adjacent to an active or potentially active fault. The active faults nearest to the project site are the San Andreas, located approximately 7 miles southwest of the project site, and the Hayward, located approximately 15 miles northeast. As the project site is not located in an Alquist-Priolo Earthquake Fault Zone and is not located on or immediately adjacent to an active fault, there would be no impact related to fault rupture hazards.

aii, aiii) **Less than Significant.** The project site is located in a seismically-active region. Recent studies by the United States Geological Survey (USGS) indicate there is a 63 percent likelihood of a Richter magnitude 6.7 or higher earthquake occurring in the Bay Area in the next 30 years (USGS, 2008). The project site could experience a range of ground shaking effects during an earthquake on one of the aforementioned Bay Area faults.[4] Depending on a variety of factors such as distance to the epicenter, magnitude of the event, and behavior of underlying materials, ground shaking could be significant. Seismic shaking of this intensity can also trigger ground failures caused by liquefaction, potentially resulting in foundation damage, disruption of utility service and roadway damage.[5] The project site is generally underlain by fill materials ranging in depths from 27 to 51 feet (Treadwell and Rollo, 1998). Beneath the fill materials, the site is underlain by Bay Mud deposits which extend to at least 80 feet below ground surface. Liquefaction potential is generally highest in loose saturated sediments in the upper 50 feet. Based on the proximity of the site to the Bay, groundwater is likely encountered above 50 feet. During the geotechnical investigation conducted for previous improvements at the site, the saturated sand deposits below the groundwater were found to be relatively dense and contain clay, making the potential for liquefaction low. However, localized discontinuous sand deposits were also encountered that may be susceptible to liquefaction.

The proposed project would not include the construction of any habitable structures. Although seismic ground shaking or liquefaction may occur at the site, the potential damage would

[3] An active fault is defined by the State of California is a fault that has had surface displacement within Holocene time (approximately the last 11,000 years). A potentially active fault is defined as a fault that has shown evidence of surface displacement during the Quaternary (last 1.6 million years), unless direct geologic evidence demonstrates inactivity for all of the Holocene or longer. This definition does not, of course, mean that faults lacking evidence of surface displacement are necessarily inactive. Sufficiently active is also used to describe a fault if there is some evidence that Holocene displacement occurred on one or more of its segments or branches (Hart, 1997).

[4] Shaking intensity is a measure of ground shaking effects at a particular location, and can vary depending on the overall magnitude of the earthquake, distance to the fault, focus of earthquake energy, and type of underlying geologic material. The Modified Mercalli (MM) intensity scale is commonly used to measure earthquake effects due to ground shaking. The MM values for intensity range from I (earthquake not felt) to XII (damage nearly total).

[5] Liquefaction is the process by which saturated, loose, fine-grained, granular, soil, like sand, behaves like a dense fluid when subjected to prolonged shaking during an earthquake.

likely be minimized through the implementation of building code requirements. Project improvements would be required to adhere to the most current version of the California Building Code, which includes specifications and seismic design criteria that are created to minimize damage from anticipated ground shaking and secondary effects of liquefaction. Incorporation of the design criteria into project construction would limit the potential damage to less than significant levels.

a.iv) **No Impact.** The project site has a relatively level topography, especially in the area of the proposed improvements, that would not be subject to slope failure. In addition, there are no adjacent slopes that could affect the project site. Therefore, the proposed project would not be adversely affected by potential impacts associated with seismically induced landslides.

b) **Less than Significant.** Due to past development activity, the project site is underlain by fill materials and no longer contains native topsoils. Construction activities for the proposed project would be relatively minimal based on the use of modular technologies incorporated into the design. Construction is anticipated to disturb an area of approximately 0.44 acres and would export approximately 2,230 cubic yards of material during preliminary earthwork and grading. The relatively small area of disturbance combined with the relatively short period of construction would result in a less than significant potential for erosion. Therefore, considering the existing conditions and the relatively minor area of disturbance, the potential for substantial soil erosion or loss of topsoil is considered less than significant.

c) **Less than Significant.** As stated above, the project site is underlain by fill materials to a depth of 27 to 51 feet. Beneath the fill materials Bay Mud deposits are encountered which are typically characterized as soft compressible materials. However, the geotechnical investigation prepared for an earlier project at the site concluded that the fill materials were relatively dense. The proposed modular improvements likely represent a relatively light loading as compared to a multi-storied structure. Regardless, the proposed improvements would be required to adhere to the requirements of the most recent version of the California Building Code, which includes specifications for site preparations such as compaction requirements for foundations. Therefore, with incorporation of building code requirements and oversight of earthwork activities by a California licensed geotechnical engineer, the potential impacts associated with unstable soils would be less than significant. Potential impacts related to liquefaction are discussed under Comment to 6.a.ii, above.

d) **Less than Significant.** As noted above, the project site is underlain by artificial fill. The geotechnical characteristics of this fill, including its potential for expansion, is currently unknown. However, the proposed project would be required to perform a design level geotechnical investigation in accordance with the California Building Code, which includes requirements to identify foundation soils that could be affected by expansive soils. Therefore, with implementation of recommendations made by a licensed geotechnical engineer in accordance with current building code standards there would be a less than significant impact related to expansive soils.

e) **No Impact.** The proposed project does not require the use of septic tanks or any other alternative wastewater disposal system. Therefore, the project would have no impact related to the support of septic systems.

References

Jennings, C. W., *Fault Activity Map of California and Adjacent Areas*, California Division of Mines and Geology Data Map No. 6, 1:750,000, 1994.

Treadwell & Rollo, *Draft Geotechnical Investigation MRF/Transfer Facility*, April 24, 1998.

United States Geological Survey, *USGS Fact Sheet 039-03*, Working Group 02, 2003.

United States Geological Survey (USGS) Working Group on California Earthquake Probabilities (WG07), *Fact Sheet 2008-3027, Forecasting California's Earthquakes – What Can We Expect in the Next 30 Years?*, http://pubs.usgs.gov/fs/2008/3027/fs2008-3027.pdf, 2008.

Greenhouse Gas Emissions

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
7. GREENHOUSE GAS EMISSIONS — Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion

a-b) **Less than Significant.** GHG impacts are considered to be exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA, 2008). Construction and operational GHG emissions were calculated, as described above in the Air Quality (Section 3) analysis. GHGs would be generated during construction from the use of equipment, construction-related vehicular activity, and construction worker automobile trips. The proposed project would generate GHG emissions from operations through the following sources: on-road mobile, a front end loader, microturbine energy generation, grid electricity, lean gas flare, and composting (trace methane per SCAQMD composting emission factor [SCAQMD, 2001]).

As described in the Air Quality analysis, this analysis adopts the thresholds and methodologies (as deemed appropriate for this project) from the BAAQMD *CEQA Air Quality Guidelines* (BAAQMD, 2011) to determine the potential impacts of the project. The BAAQMD *Guidelines* do not include a specific threshold or methodology for assessing construction-related GHG emissions for CEQA analysis. In regards to operations, the previously adopted BAAQMD threshold for stationary-source projects of 10,000 MT CO_2e/yr was applied to the project since the majority of GHG emissions would be from stationary sources. Stationary-source projects include land uses that would accommodate processes and equipment that emit GHG emissions and would require a BAAQMD permit to operate.

GHG emissions associated with the construction phase of the project would result in a maximum annual generation of 62 metric tons of CO_2e per year (MT CO_2e/yr), as shown in Appendix B. In addition, **Table 3** presents an unmitigated estimate of the project's operational CO_2e emissions. Data in **Table 3** indicate that GHG emissions that would result from the project would not exceed the 10,000 metric tons per year threshold and would be less than significant without mitigation.

TABLE 3
ANNUAL OPERATION-RELATED GHG EMISSIONS[a]

Sources	CO_2e (MT/Yr)
On-road Mobile (CNG Trucks + Employees)	21
Off-road Equipment (Front End Loader)	35
Microturbine	489
Grid Electricity	197
Composting	84
Lean Gas Flare	66
Total GHGs	892
BAAQMD Threshold	10,000
Significant Impact?	No

a. Assumptions and specific emission factors are included in Appendix B.

Furthermore, as described in the updated information for the CEC grant, there are several GHG avoidance benefits to the project not included in the above estimate (Edgar and Associates, 2012a). Specifically with the 10,000 tons per year throughput of the project, the fuel carbon intensity would be 30.46g CO_2e/MJ, which would be approximately 68% less than diesel fuel and would represent a GHG reduction relative to diesel of 387 MT CO_2e/yr. In addition, assuming the food waste input fraction is diverted from landfill disposal, then landfill gas emissions would be eliminated for these materials.[6] This represents GHG emissions avoidance from 818 MT CO_2e/yr (if the landfill gas is used to generate electricity) to 1,351 MT CO_2e/yr (if the landfill gas is flared). Finally, by using the food waste digestate as compost[7], the resulting compost emissions reduction would be 377 MT CO_2e/yr. Thus, implementation of the project would result in avoided GHGs of approximately 1,582 MT CO_2e/yr up to 2,115 MT CO_2e/yr.

Finally, the project would assist with the goals and objectives of multiple plans and directives described in the Project Description, such as AB 32 (Measures E-3 and RW-3), the LCFS, and the CalRecycle Strategic Directive 6.1. The project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. This would be a less than significant impact.

[6] Yard waste is largely diverted already and was not included in the calculation.
[7] Yard waste is assumed to be diverted and used as a soil amendment under existing conditions.

References

Bay Area Air Quality Management District (BAAQMD), 2011. *CEQA Air Quality Guidelines*, revised May 2011. Available at http://www.baaqmd.gov.

California Air Pollution Control Officers Association (CAPCOA), 2008. *CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*.

Edgar and Associates, 2012a. *CEC Grant Application – Updated Attachments G and I*, revised July 9, 2012.

South Coast Air Quality Management District (SCAQMD), 2001. *Ammonia and Volatile Organic Compound (VOC) Emissions from a Greenwaste Composting Operation.*

Hazards and Hazardous Materials

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
8.	**HAZARDS AND HAZARDOUS MATERIALS — Would the project:**				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Discussion

a, b) **Less than Significant with Mitigation.** Construction activities would likely require the use of limited quantities of hazardous materials such as fuels, oils, lubricants, and solvents. The improper use, storage, handling, transport or disposal of hazardous materials during construction could result in an accidental release exposing construction workers, the public and the environment, including soil and/or ground or surface water, to adverse effects.

However, numerous laws and regulations govern the transport, use, storage, handling and disposal of hazardous materials to reduce the potential hazards associated with these activities. Cal/OSHA is responsible for developing and enforcing workplace safety standards, including the handling and use of hazardous materials. Transportation of hazardous materials is regulated by the DOT and Caltrans. Together, federal and State agencies determine driver-

training requirements, load labeling procedures, and container specifications designed to minimize the risk of accidental release. In addition, the use of the modular design would likely result in a relatively minor amount of hazardous materials that would be required on site during construction. Therefore, the transport, use, storage, handling and disposal of hazardous materials would be adequately controlled through existing regulatory requirements and the potential impact during construction would be less than significant.

Operation and maintenance of the anaerobic digester facilities would also involve the transport, use, storage and disposal of small quantities of hazardous materials such as fuels, lubricants, hydraulic fluids. Handling of hazardous materials is covered by federal and State laws which minimize worker safety risks from both physical and chemical hazards in the workplace. Cal/OSHA is responsible for developing and enforcing workplace safety standards, including the handling and use of hazardous materials. Businesses that use hazardous materials are required to submit a Hazardous Materials Business Plan to the local CUPA, which performs inspections to ensure compliance with hazardous materials labeling, training, and storage regulations. For example, hazardous materials must be stored in containers according to the manufacturer's guidelines and appropriately labeled. The Material Safety Data Sheet for each chemical must be available for review. Employers must inform workers of the hazards associated with the materials they handle and maintain records documenting training. As an existing facility with current use of hazardous materials, the Hazardous Materials Business Plan would be required to be updated to reflect any changes that might occur from the proposed project.

Transportation of hazardous materials is regulated by the DOT and Caltrans. Together, federal and State agencies determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the risk of accidental release.

The proposed project also involves the production of biogas generated through the anaerobic digestion process. Biogas is composed primarily of methane but can also contain small quantities of carbon dioxide and hydrogen sulfide. The biogas would be captured and the low quality lean gas (methane content below 20% and higher than 1%) would be destroyed in an enclosed lean gas flare (LGF) generated during digester termination operations. Methane is not toxic, but handling methane can be hazardous as it is ignitable and can be flammable. Methane has an ignition temperature of 1,000 degrees Fahrenheit (°F) and is flammable at concentrations between 5 percent and 15 percent in air. Unconfined mixtures of methane in air are not explosive; however, a flammable concentration within an enclosed space in the presence of an ignition source can explode. Methane is buoyant at atmospheric temperatures and disperses rapidly in air. Unintentional releases of biogas from the facility could pose risks to human health and safety. For example, biogas could be released from a leak or rupture at the digester facility. If the gas reaches a combustible mixture and an ignition source is present, a fire and/or explosion could occur, resulting in possible injuries and/or deaths.

Compliance with existing safety regulations and widely-accepted industry standards would minimize the hazard to the public and the environment. With respect to the flaring of biogas and potential fire hazards associated with the storage and transport of methane and small quantities of other materials used in operations, the National Fire Protection Association (NFPA) has established standards for fire protection which would be applicable to the construction of the AD facilities. These standards have been successfully implemented by numerous waste water treatment facilities across the country. Construction and operation of the project would be required to comply with the California fire code and local building codes (including requirements for the installation of fire suppression systems). Standard safety measures for anaerobic treatment facility construction and operation that would minimize the potential for risks from unintentional releases of biogas include leak detection systems, warning signals, and safety flares to reduce excess gas capacity. If released to the environment, methane would be dispersed rapidly in air, minimizing the hazards of exposure.

Although compliance with existing laws and regulations governing the transport, use, storage, handling and disposal of hazardous materials would likely ensure less than significant impacts, a Fire Safety Plan would be implemented per **Mitigation Measure HAZ-1** due to the combustion potential of methane.

> **Mitigation Measure HAZ-1:** Prior to project approval, the applicant shall prepare and implement a Fire Safety Plan that outlines fire hazards, describes facility operations procedures to prevent ignition of fires, requires regular inspection of fire suppression systems, and provides worker training in safety procedures as well as protocols for responding to fire incidents. The Fire Safety Plan shall be reviewed and approved by the local fire enforcement agency.

c) **No Impact.** As discussed above, small quantities of hazardous materials could be used in the construction and operation of the proposed project. Compliance with environmental laws and regulations would reduce the potential for any release of those materials to adversely affect onsite workers, the environment or the public. There are no schools located within a quarter mile of the proposed project. Therefore, there would be no impact related to potential exposure of hazardous emissions or acutely hazardous materials, substances, or wastes within one-quarter mile of a school.

d) **Less than Significant.** The project site is not included on the databases maintained by the Department of Toxic Substances Control (Envirostor) and the State Water Resources Control Board (Geotracker) (DTSC, 2012 and SWRCB, 2012). There is a database entry for the project site address which addresses the adjacent former Fuller O'Brien Paint site. Dischargers from the adjacent facility have impacted the nearby channel with questionable fill. Both parties involved are working together to cleanup the channel. The Fuller O'Brien Paint site was created in the late 1960's and early 1970's by filling the former San Bruno Shipping Channel. It is currently a low-lying, 2-acre slough area located near the end of East Jamie Court. Multiple environmental investigations have been conducted on the property since the 1980's. Elevated concentrations of lead are present in shallow sediment. Additionally, semi-volatile organic compounds, similar to those found in asphalt, have also been encountered in fill sediments (SWRCB, 2012).

In addition, several properties located north of the project site are also associated with the former Fuller O'Brien Paint facilities which have been subject to numerous soil and groundwater investigations (DTSC, 2012). The main hazardous waste and hazardous waste constituent of concern was lead; other constituents were metals, VOCs, and semi-volatile compounds. The entire property's groundwater investigation was documented in the 2005 RCRA Facility Investigation (RFI), which determined no further action was necessary. Therefore, there is little evidence to suggest that the minimal earthwork activities that would be associated with the proposed project would encounter any contamination that resulted from neighboring properties and the potential impact would be less than significant.

e) **No Impact.** The proposed project is located approximately 8,200 feet north of Runway 10L-28R at San Francisco International Airport. The *San Mateo County Comprehensive Land Use Plan*, published by the C/CAG in December 1996, is the official airport land use compatibility plan (ALUCP) for San Francisco International Airport. Based on a review of the *San Mateo County Comprehensive Land Use Plan* (1996 CLUP) it is noted that the proposed project site is within the community noise equivalent level (CNEL) 70 decibel (dBA) noise exposure contour for San Francisco International Airport. While the 1996 CLUP does not specifically define the extents of the AIA for San Francisco International Airport, it is assumed that the project site is within the AIA since the project site is located within the CNEL 70 dB noise exposure contour defined in the CLUP. While specific safety zones for San Francisco International Airport are not defined in the 1996 CLUP, the CLUP specifies that land uses with certain characteristics could represent a hazard to safe air navigation in the vicinity of San Francisco International Airport. These characteristics include, but are not limited to: (1) land uses that generate smoke or rising columns of air, and (2) land uses within approach and climb out areas that attract large concentrations of birds. The proposed AD facility is not expected to generate measurable amounts of smoke or steam and would not attract large concentrations of wildlife (birds) that might pose a hazard to safe air navigation.

The C/CAG Board generally reviews local land use actions/projects located within the AIA when there is a potential issue of compatibility with airport activities at San Francisco International Airport. Based on a review of policies contained in the 1996 CLUP, the project would not result in actions that would conflict with the ALUCP.

Code of Federal Regulations, Title 14, Part 77, *Safe Efficient Use and Preservation of the Navigable Airspace* (14 CFR Part 77) establishes the federal review process for determining whether proposed development activities in the vicinity of an airport have the potential to result in a hazard to air navigation. 14 CFR Part 77 identifies criteria that govern which projects require notice to be filed with the Federal Aviation Administration (FAA) as well as identifying standards for determining whether a proposed project would represent an obstruction "that may affect safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities". Objects that are identified as obstructions based on these standards are presumed to be hazards until an aeronautical study conducted by the FAA determines otherwise.

The location of the proposed anaerobic digester with respect to San Francisco International Airport warrants evaluation to determine if filing notice with the FAA is required and whether proposed buildings and objects associated with the proposed project could represent obstructions to air navigation based on the guidance contained in 14 CFR Part 77, Subpart C.

14 CFR Part 77.9 "Construction or Alteration Requiring Notice" indicates that notice must be filed with the FAA for any construction or alteration of objects within 20,000 feet of a public use airport runway when the height of the objects exceeds (i.e., is taller than) an imaginary surface with a 100:1 (1 foot upward per 100 feet horizontally) slope from the nearest point of the nearest runway. This requirement applies when the airport has at least one runway that exceeds 3,200 feet in length; for shorter runways the notification surface has a 50:1 slope and extends 10,000 feet from the runway. The runways at San Francisco International Airport are more than 3,200 feet in length.

The height of the FAA's Notification surface at the proposed project site is approximately 80 feet above ground level (AGL) given the distance between the site and runways at San Francisco International Airport and the ground elevation relative to mean sea level at both locations. The anaerobic digester building is expected to have a height of approximately 30 feet AGL. Since the proposed height of the anaerobic digester building and flare structure are lower than the height of the FAA notification surface, the project sponsor does not need to file Form 7460-1, "Notice of Proposed Construction or Alteration" with the FAA.

f) **No Impact.** There are no known private airstrips within two miles of the proposed project site. There would be no impact related to private airstrips.

g) **Less than Significant.** The proposed project would not significantly interfere with emergency response plans or evacuation plans. The proposed project would not impede or require diversion of rescue vehicles or evacuation traffic in the event of a life-threatening emergency. The impact would be less than significant.

h) **No Impact.** The project site is located in a commercial area of South San Francisco. The project site is not located in the vicinity of a wildland area susceptible to wildland fires. No impact would occur.

References

Department of Toxic Substances Control (DTSC), *DTSC's Envirostor Database*, http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=80001530, accessed June 20, 2012.

San Mateo County, 1996. *San Mateo County Comprehensive Land Use Plan.*

State Water Resources Control Board (SWRCB), *Geotracker*, http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=500+E+Jamie+Ct%2C+South+San+Francisco+CA, accessed June 20, 2012.

Hydrology and Water Quality

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
9. HYDROLOGY AND WATER QUALITY — Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Discussion

a, f) **Less than Significant.** The Clean Water Act (CWA) has nationally regulated the discharge of pollutants to waters of the U.S. from any point source since 1972. In 1987, amendments to the CWA added section 402(p) which established a framework for regulating non-point source stormwater discharges under the National Pollutant Discharge Elimination System (NPDES). The NPDES storm water program, implemented by the State Water Resources Control Board (SWRCB), regulates storm water discharges from construction sites that

disturb one or more acres of land, municipal separate storm systems (MS4s), and major industrial facilities. Under the NPDES permit requirements, the proposed project would not be required to obtain a General Construction Activities NPDES permit but because it would disturb more than 10,000 square feet it would have to meet the permit requirements for MS4s. South San Francisco is a co-permitee for the Municipal Regional Stormwater Permit (R2-2009-0074) which was adopted in 2009 and amended November 2011

If not managed appropriately, nonpoint-source pollutants could be transported with stormwater runoff that reaches San Francisco Bay which would result in a significant impact. However, to reduce impacts, stormwater control/Low Impact Design (LID) measures would be required as part of compliance with RWQCB Municipal Regional Stormwater Permit Order No. 2009-0074 Provision C.3 (Provision C.3). As required by the permit, the project applicant would incorporate LID strategies, such as stormwater reuse, onsite infiltration, and evapotranspiration as initial stormwater management strategies. Secondary methods that could be incorporated would include the use of natural, landscape based stormwater treatment measures, as identified by Provision C.3.

Stormwater treatment measures would also be required in the final design plans in accordance with the San Mateo Countywide Water Pollution Prevention Program C.3 Stormwater Technical Guidebook. The treatment BMPs will be required to include one or more of the following: bioretention areas (including bioretention swales), flow-through planters, tree well filters, vegetated buffer strips, infiltration trenches, extended detention basins, pervious paving, green roofs, and media filter.

Therefore, with adherence to the existing stormwater regulations, the proposed project would have a less than significant impact on water quality.

b) **No Impact.** The proposed project, by design, would have a net zero water supply usage as well as a net zero introduction of new impervious surfaces. Therefore, there would be no impact related to groundwater recharge or lowering of any local groundwater table levels.

c) **Less than Significant.** The proposed project would be located in the area of the site that is currently covered by asphalt and would not otherwise alter the course of any stream or river. With implementation of C.3 requirements, as described above for criterion "a", drainage patterns could be altered through an increase in stormwater management features which promote infiltration onsite. Adherence to the NPDES requirements for post-construction management of stormwater would also ensure that stormwater is controlled in a manner which does not result in substantial erosion or siltation in on- or off-site runoff. Therefore, the potential impact related to erosion and siltation would be less than significant.

d) **Less than Significant.** As mentioned above, the proposed project would not increase the amount of impervious surfaces at the project site. In addition, adherence to the Regional Municipal NPDES permit includes measures to ensure that onsite management of stormwater

runoff does not result in any onsite flooding. Therefore, the potential impact related to flooding on- or off-site from changes in drainage patterns would be less than significant.

e) **Less than Significant.** As mentioned above, the proposed project would not increase the amount of impervious surfaces at the site and therefore would not increase the amount of stormwater runoff from the site. In addition, any LID features that would be added to the stormwater management of the site as required by the C.3 regulations would result in a reduction of stormwater flows from the site. Therefore, the potential impact on existing or planned stormwater drainage systems would be less than significant.

g) **No Impact.** The proposed project does not include any construction of housing or other residential units and therefore there would be no impact related to this criterion.

h) **Less than Significant.** Periodic flooding occurs in South San Francisco, but is generally confined to certain areas along Colma Creek. The project site is not located within the 100-year flood zone and only the Bay shoreline areas are subject to coastal wave action (South San Francisco, 2012). Although potential future levels of sea level rise are difficult to predict, the Association of Bay Area Governments (ABAG) has compiled mapping that indicates areas that could be inundated under two different sea level rise scenarios: 16 inch and 55 inch rises. The proposed project site would not be inundated under either scenario according to these modeled mapping tools (ABAG, 2012a). The proposed improvements are not located along the shoreline. Therefore, the potential impact related to flooding would be less than significant.

i) **No Impact.** According to mapping compiled by ABAG, there are no dam inundation areas located anywhere within South San Francisco, therefore there would be no impact related to failure of a dam or levee (ABAG, 2012b).

j) **Less than Significant.** The project site is located relatively near the Bay shoreline which is considered potentially susceptible to seiche waves; however, there is no historical record of any occurring within the Bay. Tsunami waves have been observed in the Bay most recently from the 2011 Japanese Tsunami disaster. Wave run-up in the South San Francisco shoreline is estimated at approximately 4.3 feet (mean sea level) for a tsunami with a 100-year recurrence and 6.0 feet (mean sea level) for a 500-year tsunami (South San Francisco, 2012). According to modeled inundation mapping compiled by ABAG, the project site would not be subject to inundation from a tsunami event (ABAG, 2012c). The project is relatively flat with no real sources of mudflow in the vicinity and therefore would not be considered susceptible to mudflows. In summary, the project would have a less than significant impact related to inundation from seiche, tsunami or mudflow.

References

Association of Bay Area Governments (ABAG), *Sea Level Rise Map for Long Range Planning,* http://gis.abag.ca.gov/Website/SeaLevelRise/index.html, accessed June 28, 2012a.

Association of Bay Area Governments (ABAG), *Dam Failure Inundation Map for South San Francisco,* http://www.abag.ca.gov/cgi-bin/pickdamx.pl, accessed June 28, 2012b.

Association of Bay Area Governments (ABAG), *Sea Level Rise Map for Long Range Planning,* http://gis.abag.ca.gov/website/Tsunami/, accessed June 28, 2012c.

South San Francisco, *South San Francisco General Plan,* http://www.ssf.net/index.aspx?NID=360, accessed June 28, 2012.

Land Use and Land Use Planning

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
10. LAND USE AND LAND USE PLANNING — Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion

a) **No Impact.** The project would be located at an existing parking area at the Blue Line MRF site, which is currently designated Mixed Industrial in the most recent *General Plan Land Use Diagram* (City of South San Francisco, 2011a) and *Zoning District Map* (City of South San Francisco, 2011b). As such, the project would have no impact related to dividing an established community.

b) **No Impact.** The project would be located approximately 8,200 feet north of Runway 10L-28R at San Francisco International Airport. The project site is within the Airport Influence Area (AIA) Area B for San Francisco International Airport and within the CNEL 70 dBA noise exposure contour for San Francisco International Airport as defined in the *San Mateo County Comprehensive Land Use Plan* (1996 CLUP), the adopted Airport Land Use Compatibility Plan for the airport. While the proposed anaerobic digester facility is not in conflict with policies contained in the 1996 CLUP for San Francisco International Airport, proposed development actions within Area B of the AIA should be referred to the C/CAG Board for a determination of consistency with the ALUCP if they involve construction of buildings or structures with a height of 35 feet or more. Since the project would not result in structures of 35 feet or more, the project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

c) **No Impact.** The project site is not covered by a Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, the project would not result in impacts related to this criterion.

References

City of South San Francisco, 2011a. *General Plan Land Use Diagram*, last revised September 2011 and available at http://www.ci.ssf.ca.us/DocumentCenter/Home/View/559

City of South San Francisco, 2011b. *Zoning District Map*, last revised November 2011 and available at http://www.ci.ssf.ca.us/DocumentCenter/Home/View/3716

San Mateo County, 1996. *San Mateo County Comprehensive Land Use Plan*.

Mineral Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
11. MINERAL RESOURCES — Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion

a-b) **No Impact.** The project would be located at an existing parking area at the Blue Line MRF site and would not affect availability of mineral resources, nor would the project result in the loss of any delineated, locally important mineral resource recovery site. Therefore, no impact on mineral resources is anticipated.

Noise

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
12.	**NOISE — Would the project:**				
a)	Result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b)	Result in exposure of persons to or generation of, excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c)	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d)	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e)	For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☒	☐
f)	For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion

a) **Less than Significant with Mitigation.** Background noise in the project area is predominated by noise generated from the Blue Line MRF facility and punctuated by discrete noise events associated with the San Francisco International Airport (SFO). The project site is surrounded by industrial and business park land uses, which are not typically considered to be noise sensitive land uses. However, open space, in this case the Bay Trail, is considered moderately noise sensitive.

The City of South San Francisco maintains an *East of 101 Area Plan* with an area specific Noise Element (City of South San Francisco, 1994). This Area Plan Noise Element establishes noise policies for development in the East of 101 Area, an area of South San Francisco predominated by industry and commercial businesses. The primary policy that would apply to the project is Policy NO-4: New development shall be designed so that the average noise level resulting from the new development does not exceed an Leq of 60 dBA at the nearest open space or recreational area.

The City of South San Francisco also maintains a City-wide noise ordinance, which is an enforceable regulation that is directed primarily at fixed noise sources generated on City and privately owned property (City Code, Chapter 8.32). The noise ordinance specifies noise standards based on the duration of the noise event over a given hour period. These

noise standards are then made applicable to the areas of potential impact (those properties affected by the intrusive noise). For the surrounding business park land uses, the ordinance applies a noise level standard of 70 dBA for a cumulative period of more than 30 minutes in any hour and an Lmax of 90 dBA.

The City noise ordinance exempts construction noise from compliance with noise standards if construction noise is generated between the hours of 8 a.m. and 8 p.m. on weekdays, 9 a.m. and 8 p.m. on Saturday, and 10 a.m. and 6 p.m. on Sundays and holidays. Construction noise is allowed outside of these hours if permitted by the City, allowing the noise can meet additional specifications outlined in Section 8.32.050(d)(l) and (2).

Construction

Land uses surrounding the project site consist of business parks to the north (180 feet away) and west (80 feet away), and the Bay Trail to the south (420 feet away). There is a vegetative parcel buffering the business park to the north from the project, and a noise attenuation rate of 7.5 dBA per doubling distance was assumed accordingly for this land use. There is also an existing concrete wall on the western boundary of the Blue Line MRF site that would reduce noise exposure for land uses west of the project. There are also existing Blue Line MRF buildings in between the project and the Bay Trail that would reduce noise exposure from the project. Since the existing area west and south of the project consists primarily of paved hard surfaces, the general noise attenuation rate is assumed to be 6 dBA per doubling distance (not including reductions from intervening structures).

Table 4 shows typical noise levels during different construction stages. Excavation noise levels are 89 dBA at 50 feet, which when attenuated to the nearest land uses, would expose the north business park, west business park, and the Bay Trail to noise levels of 75 dBA, 85 dBA, and 71 dBA, respectively, during the loudest of construction activities that would occur. This estimate does not include reductions due to intervening structures, which would likely further reduce noise exposure by 3 to 5 dBA. However, these overall noise levels associated with project construction would pose a substantial increase over the short-term (2 to 3 month) duration of construction. Implementation of Mitigation Measure NOI-1 would ensure that construction noise associated with the project would be less than significant.

TABLE 4
TYPICAL CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level[a] (dBA, Leq)
Ground clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89

a Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.

SOURCE: Bolt, Beranek, and Newman, 1971.

Mitigation Measure NOI-1: The project applicant shall require construction contractors to implement the following mitigation measures:

- Consistent with the City of South San Francisco Municipal Code, all noise generating construction activities shall be limited to between the hours of 8 a.m. and 8 p.m. on weekdays, 9 a.m. and 8 p.m. on Saturday, and 10 a.m. and 6 p.m. on Sundays and holidays.

Operations

In regards to long-term operations, the surrounding land use that would be exposed to the most noise would be the existing business park to the west of the project. The research campus to the north and the Bay Trail to the south would be much further away and would be partially screened by existing structures. The primary sources of noise during operations would be collection trucks, a front end loader, and the microturbine. However, trucks already operate on the project area and would not result in a noticeable change in the noise environment. In addition, the microturbine would be enclosed and would not exceed the City of South San Francisco noise standards of 70 dBA for a cumulative period of more than 30 minutes in any hour or Lmax of 90 dBA. The front end loader, however, would be a new noise source in the project area and could generate substantial noise during equipment usage.

The front end loader would move materials from the aeration bay to the anaerobic digesters, then to the compost enclosure, and transferred onto transport trucks. The applicant anticipates the loader would be used 3.5 hours per day. Using the FHWA Roadway Construction Noise Model (RCNM), the estimated noise exposure at the nearest building west of the project would be slightly less than 70 dBA Leq, which includes a 5 dBA reduction in noise by the existing noise wall on the Blue Line MRF property boundary[8]. Thus, the project would not exceed the City of South San Francisco noise ordinance levels and would be less than significant without mitigation.

[8] The RCNM output is included as **Appendix C**.

b) **Less than Significant.** Vibration and ground-borne noise issues tend to occur when physically forceful or ground-penetrating equipment is utilized, such as pile drivers or where blasting is necessary. No such equipment or activities are required during construction or operations of the proposed project. Thus, the proposed project would not generate significant groundborne vibration or groundborne noise impacts. Therefore, this impact is considered less than significant.

c) **Less than Significant.** See the discussion regarding operation related noise for criterion "a" above. This would be a less-than-significant impact.

d) **Less than Significant with Mitigation.** As discussed in the "Construction" sub-section of criterion "a" above, the resulting impact would be less than significant with implementation of Mitigation Measure NOI-1.

e) **Less than Significant.** As discussed previously, the project would be located approximately 8,200 feet north of Runway 10L-28R at San Francisco International Airport. The project site is located within the CNEL 70 dBA noise contour projected for the airport as defined in the *San Mateo County Comprehensive Land Use Plan* (San Mateo County, 1996). The proposed project does not involve the development of noise-sensitive land uses and aircraft noise is not anticipated to negatively affect the employees that would operate the anaerobic digester facility. Implementation of the proposed projects would not increase the number of people exposed to excessive levels of aircraft noise. Project impacts would be less than significant.

f) **No Impact.** The project is not located within two miles of a private airstrip, therefore the project would not expose people working in the area to excessive noise levels. No impact would occur.

References

Bolt, Beranek, and Newman, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, 1971.

San Mateo County, 1996. *San Mateo County Comprehensive Land Use Plan*.

City of South San Francisco, 1994. *East of 101 Area Plan*, adopted July 1994.

Population and Housing

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
13. POPULATION AND HOUSING — Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

a-c) **No Impact.** The project would be located at the existing Blue Line MRF site and would not involve construction of homes or businesses that would directly induce growth in the area, nor would the project displace any housing units or people. The project would have no impact on population and housing.

Public Services

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
14. PUBLIC SERVICES — Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☐	☒
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

Discussion

a.i) **Less than Significant.** As described above in the Hazards and Hazardous Materials analysis, with respect to the flaring of biogas and potential fire hazards associated with the storage and transport of methane and small quantities of other materials used in operations, the NFPA has established standards for fire protection which would be applicable to the construction of the proposed AD facilities. These standards have been successfully implemented by numerous waste water treatment facilities across the country. Construction and operation of the project would be required to comply with the California fire code and local building codes (including requirements for the installation of fire suppression systems). Standard safety measures for anaerobic treatment facility construction and operation that would minimize the potential for risks from unintentional releases of biogas include leak detection systems, warning signals, and safety flares to reduce excess gas capacity. In addition, per Mitigation Measure HAZ-1, a Fire Safety Plan shall be reviewed and approved by the local fire enforcement agency prior to project construction. As such, the project would not increase the demand for fire services and would result in a less than significant impact.

a.ii) **No Impact.** The project would have no effect on the provision of police services.

a.iii) **No Impact.** The project would have no effect on population in the area; therefore, there would be no impact on the provision of schools.

a.iv) **No Impact.** The project would have no impact on the provision of park services.

a.v) **No Impact.** The project would have no impact on the provision of any other public facilities.

Recreation

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
15. RECREATION — Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion

a-b) **No Impact.** The project would be located at an existing parking area at the Blue Line MRF site and would have no impact related to the use of parks and recreational facilities in the area. The project would not include recreational facilities and would have no impact.

Transportation and Traffic

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
16. TRANSPORTATION AND TRAFFIC — Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Discussion

a-b) **Less than Significant.** The project would be located at the existing Blue Line MRF site. Although the project would result in changing yardwaste pickup to a weekly cycle (three daily trucks) rather than the existing biweekly cycle (two daily trucks), the project would operate within the existing truck and tonnage permits for the Blue Line facility. The minimal increase in collection truck activity and employee trips would result in a less than significant impact and would not conflict with an applicable plan, ordinance, or policy pertaining to the circulation system, nor would it conflict with any congestion management program.

c) **No Impact.** The proposed project is not anticipated to conflict with the goals and policies of the adopted Airport Land Use Compatibility Plan for San Francisco International Airport or result in a change in air traffic patterns or traffic levels at San Francisco International Airport that would result in substantial safety risks.

d-e) **No Impact.** Since the project would be located on a portion of the existing Blue Line MRF parking lot, adjacent to the boundary line of the Blue Line property, the proposed project would not involve any hazardous design features or incompatible uses pertaining

to transportation. Similarly, the project would not have any impact on emergency vehicle access to and circulation through the project area. The project would result in no impact.

f) **No Impact.** The project would not affect bicycle or pedestrian safety because it would be located a substantial distance from the Bay Trail (about 420 feet away), with the existing Blue Line MRF buildings and operations occurring in between.

Utilities and Service Systems

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
17. UTILITIES AND SERVICE SYSTEMS — Would the project:				
a) Conflict with wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion

a-e) **Less than Significant.** One of the advantages of dry AD technologies in comparison to wet AD technology is the limited requirement for process water. Water is constantly introduced into the dry AD system via the organic waste itself. However, throughout the course of year, there may be periods when the incoming organic waste material is dryer (summer) or wetter (winter) than the annual average. Depending on the moisture content of the organic waste processed in the dry digesters, there may be periods when additional percolate water makeup is required (in the case of lower moisture content feedstocks), or when excess percolate is generated (in the case of higher moisture content feedstocks). In either case, the project design would reduce if not eliminate the need for additional water from site water wells and discharges of excess process water to the waste water system and thus establish a closed-loop system.

During periods of excess percolate resulting from higher moisture feedstocks, the sanitized percolate would be removed and applied to composting operations to maintain proper moisture levels. Alternatively, sanitized percolate can also be marketed to local agriculture or landscapers as compost tea, a high value liquid soil amendment. In either case, there would be no need for discharges to the waste water system.

With respect to operational periods when percolate makeup is required, potable water can be used, but the preference would be the application of rinsate or reclaimed water, provided these alternatives contain no constituents which could potentially harm the percolate biology.

In regards to stormwater, the project would not include the construction of any additional impermeable surfaces and would not generate any additional storm water drainage. Therefore, implementation of the project would result in no impact to these systems.

f-g) **No Impact.** One of the primary goals of the project is the reduction of landfilled organics, which would thus result in no impact to the landfill permitted capacity. In addition, the project would be required to comply with the Solid Waste Facility Permit (SWFP) issued by the LEA and CalRecycle for the project site. The only byproduct generated by the project would be sent to a commercial compost facility, ultimately to be used as a soil amendment. Implementation of the project would result in no impact.

Mandatory Findings of Significance

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
18. MANDATORY FINDINGS OF SIGNIFICANCE — Would the project:				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion

a) **No Impact.** The project site is currently developed as a parking lot and the project would not disturb any new areas. Thus, the project would not substantially degrade the quality of the environment, reduce habitat, or restrict the range of a rare or endangered plant or animal, or eliminate a plant or animal community. The project would not affect any historic structures.

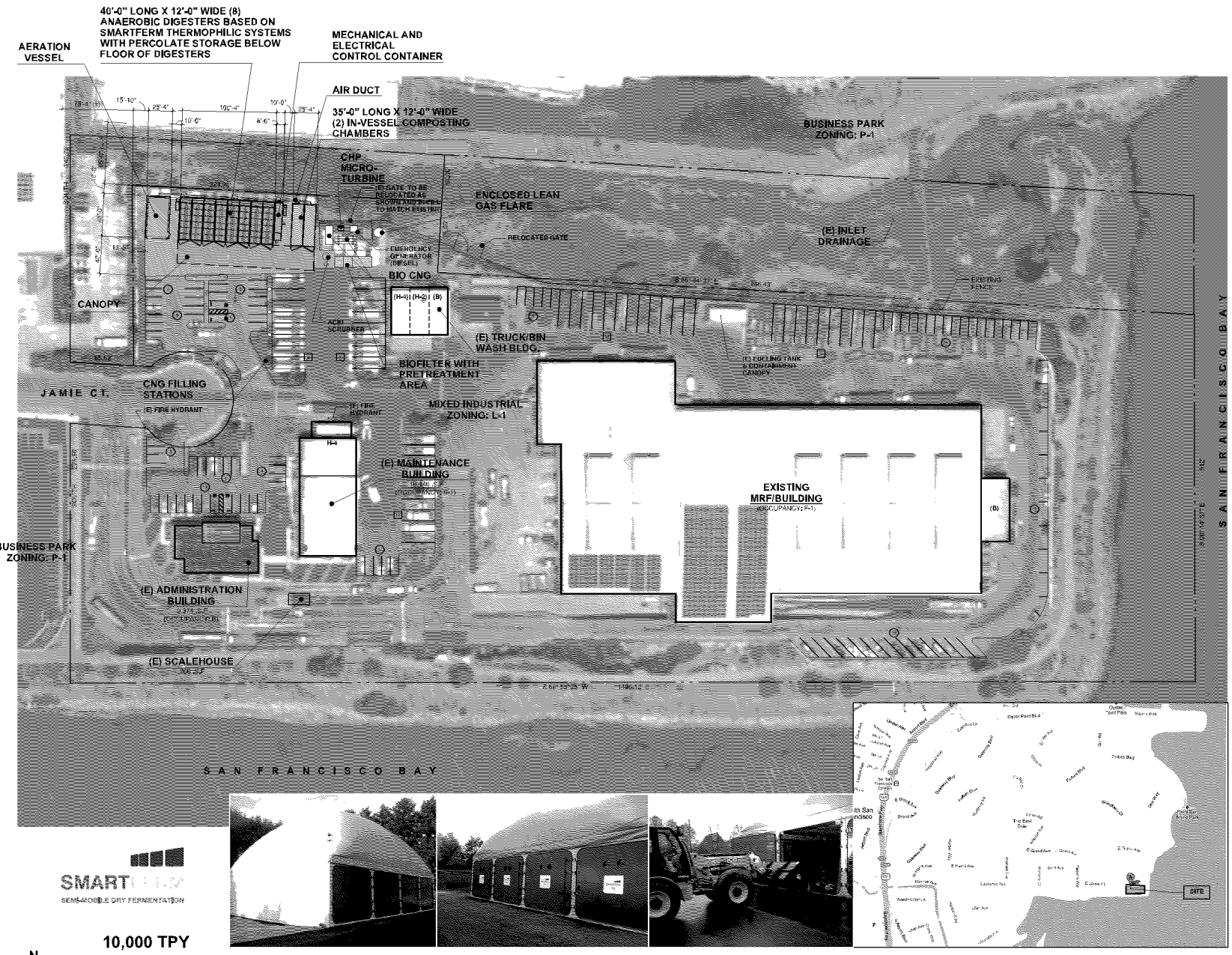
b) **Less than Significant.** The project would not have a cumulatively considerable impact on any of the environmental factors discussed above. This would result in a less than significant impact.

c) **Less than Significant.** The project would not result in impacts to human beings that would result in substantial adverse effects on human beings, directly or indirectly.

Appendix A
Supplemental Figures

Contents:

ESA



SMART

SEMI-MOBILE DRY FERMENTATION

10,000 TPY

N

SCALE: 1"=40'-0"

DIGESTER PHOTOS

VICINITY MAP

PROJECT DESCRIPTION

PROPOSED ANEROBIC DIGESTION FACILITY APPROXIMATE 7,200 S.F. AS USE AS AN ACCESSORY BUILDING TO THE MRF BUILDING ON SITE. FACILITY WILL RECEIVE FOOD WASTE FROM COLLECTION TRUCK & RESIDUALS FROM THE MRF RECYCLING PROCESS. THE FOOD WASTE WILL BE TREATED INSIDE METAL FABRICATED DIGESTERS THEN BE TRANSFORMED INTO A COMPOSE MATERIAL TO BE SOLD. THE GASES CREATED BY THE TREATMENT PROCESS WILL BE HARVESTED & REUSED FOR FUELING THE FACILITY COLLECTION TRUCKS & BE USED AS ELECTRICAL POWER FOR THE FACILITY.

BUILDING AREA ANALYSIS

EXISTING BUILDINGS:	AREA
MRF BUILDING:	101,600 S.F.
MAINTENANCE BUILDING:	10,140 S.F.
MRF OFFICE:	3,000 S.F.
PART S ROOM:	900 S.F.
ADMINISTRATION BUILDING:	9,374 S.F.
SCALE HOUSE:	200 S.F.
SERVICE BUILDING & TRUCK WASH:	3,900 S.F.
SUBTOTAL	129,704 S.F.
PROPOSED (ACCESSORY) BUILDINGS:	
PROPOSED DIGESTERS:	4,800 S.F.
PROPOSED AERATION:	1,200 S.F.
PROPOSED INVESSEL:	
COMPOSTING CHAMBERS:	1,200 S.F.
CANOPY:	2,500 S.F.
SUBTOTAL	9,600 S.F.
TOTAL:	139,304 S.F.
SITE AREA APPROXIMATELY: 509,215 S.F.	(11.7ACRES)
SITE COVERAGE: 27%	

PARKING ANALYSIS

PER ZONING CODE/TABLE 20.390.004

PARKING REQUIRED:	AREA	RATIO	STALLS
OFFICE: (3,000+200+9,374) = 12,564 S.F.		1/300	42.2
STORAGE: (10,140+300) = 15,140 S.F.		1/2000	7.6
CHEMICAL STORAGE:	3,600 S.F.	1/300	12.0
MRF:			
RECYCLING: (101,600 + 9,600) = 111,600 S.F.		* N.A	0.0
TOTAL STALLS REQUIRED:			T.B.D.

* TO BE DETERMINE BY CHIEF PLANNER

PARKING PROVIDED:	STALLS
STANDARD STALLS (9'x18')	98
HANDICAP ACCESSIBLE STALLS (9'x18')	4
TOTAL STALLS REQUIRED:	102
FLEET TRUCK STALLS:	48

LEGEND

- PROPOSED DIGESTER BUILDING
- PROPOSED COMPOSTING CHAMBERS
- PROPOSED BUILDING COMPONENTS
- PROPOSED BIOFILTER
- PROPOSED CANOPY
- EXISTING OCCUPANCY USES: (F-1, S-1, H-2, H-4, & B)
- EXISTING LANDSCAPING
- CONCRETE PAVING
- F — FLEET TRUCK PARKING
- A — AUTO STALLS
- (E) WATER FLOW DIRECTION AT PROJECT AREA

USE PERMIT MODIFICATION

BLUELINE BIOGENIC CNG FACILITY

500 E. JAMIE COURT
SOUTH SAN FRANCISCO, CALIFORNIA 94080

A1.1
SITE PLAN

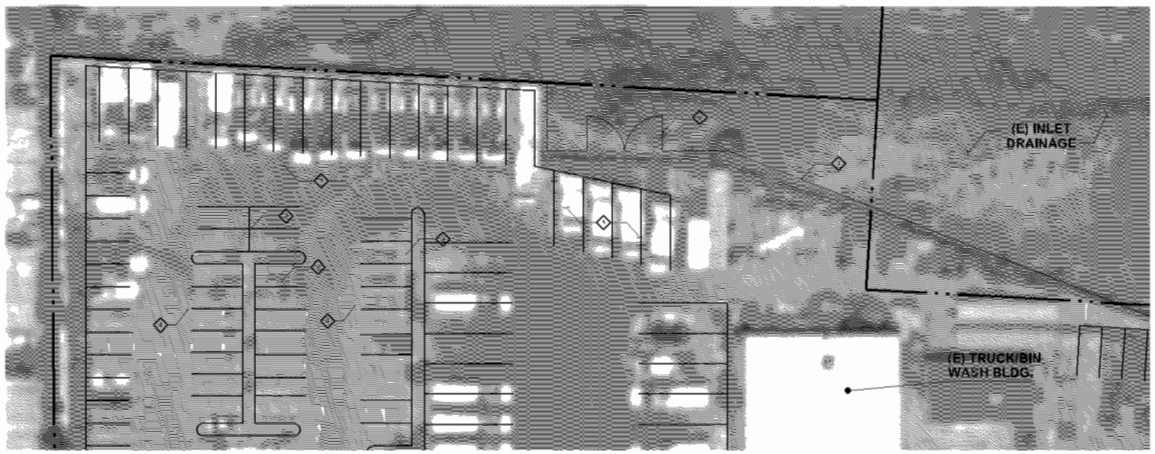
JAN ARCHITECTS ENGINEERS PLANNERS
2700 SATURN STREET,
BREA, CA, 92821

ZeroWaste

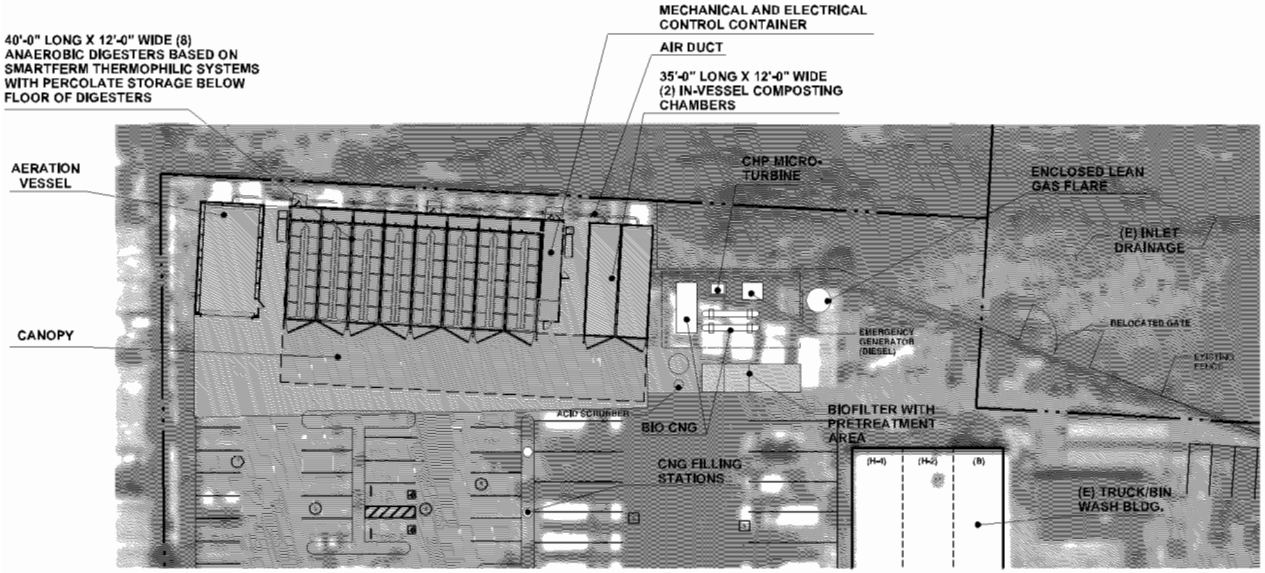
APPLICANT
SCAVENGER
BLUE LINE TRANSFER, INC.

JOB # 4433

19 JUNE 2012



EXISTING SITE



SMARTFERM IMPROVEMENTS

KEYNOTES

- EXISTING FENCE
- EXISTING GATE TO BE RELOCATED
- EXISTING LANDSCAPE TO BE MODIFIED
- EXISTING PARKING TO BE MODIFIED
- EXISTING PAVING TO BE MODIFIED FOR CONCRETE PAD

LEGEND

- PROPOSED DIGESTER BUILDING
- PROPOSED COMPOSTING CHAMBERS
- PROPOSED BUILDING COMPONENTS
- PROPOSED BIOFILTER
- PROPOSED CANOPY
- EXISTING OCCUPANCY USES: (H-2, H-4, & B)
- EXISTING LANDSCAPING
- CONCRETE PAVING
- FLEET TRUCK PARKING
- AUTO STALLS

N

SCALE: 1"=20'-0"

USE PERMIT MODIFICATION

BLUELINE BIOGENIC CNG FACILITY

500 E. JAMIE COURT
SOUTH SAN FRANCISCO, CALIFORNIA 94080

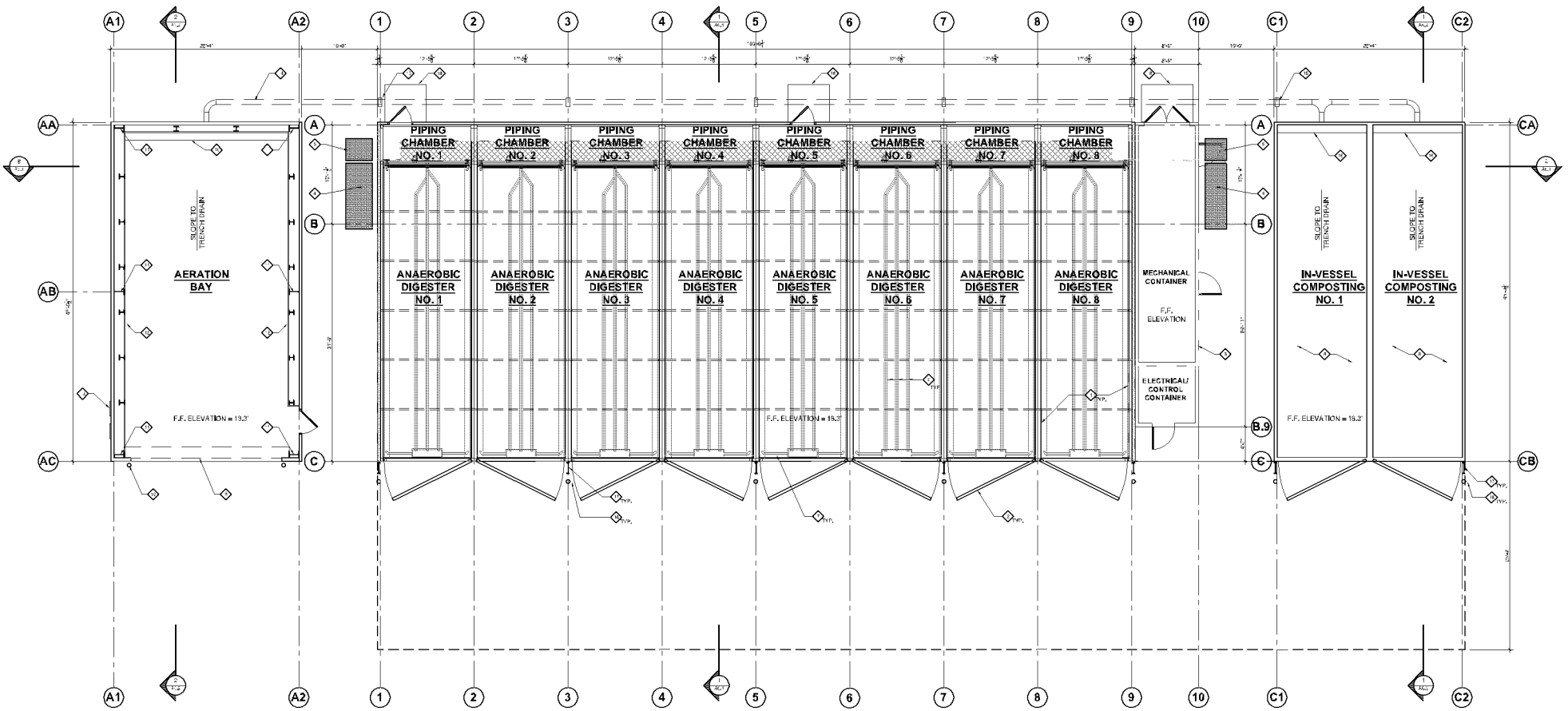
A1.2
ENLARGED SITE PLAN

JOB # 4433 — 19 JUNE 2012

ARCHITECTS ENGINEERS PLANNERS
2700 SATURN STREET,
BREA, CA, 92821

ZeroWaste

APPLICANT
SOUTH SAN FRANCISCO SCAVENGER COMPANY, INC.
BLUE LINE TRANSFER, INC.



KEYNOTES

- PREFABRICATED DIGESTERS
- DIGESTER DOOR HATCH
- STORAGE CONTAINER
- CHECKERED PLATED ACCESS HATCH FOR ACCESSING BASEMENT
- ACCESS LADDER
- AIR VENT IN DIGESTER FLOOR
- PIPING ABOVE
- COMPOSTING CONTAINERS
- COILING DOOR
- 9" CONC. FILLED STEEL PIPE BOLLARD, 6' HIGH TYP. 1 AT EACH COLUMN
- BUILDING COLUMN
- STEEL PUSH WALL
- INTAKE LOVER
- AIR DUCT (12" DIAMETER)
- DUCT SUPPORT POST, TYP.
- TRENCH DRAIN
- CANOPY COLUMN
- CONCRETE LANDING

PROPOSED BUILDINGS	
PROPOSED DIGESTERS:	4,900 S.F.
PROPOSED AERATION:	1,200 S.F.
PROPOSED IN-VESSEL:	1,200 S.F.
TOTAL	7,300 S.F.

N

SCALE: 3/16"=1'-0"

USE PERMIT MODIFICATION

BLUELINE BIOGENIC CNG FACILITY

500 E. JAMIE COURT
SOUTH SAN FRANCISCO, CALIFORNIA 94080

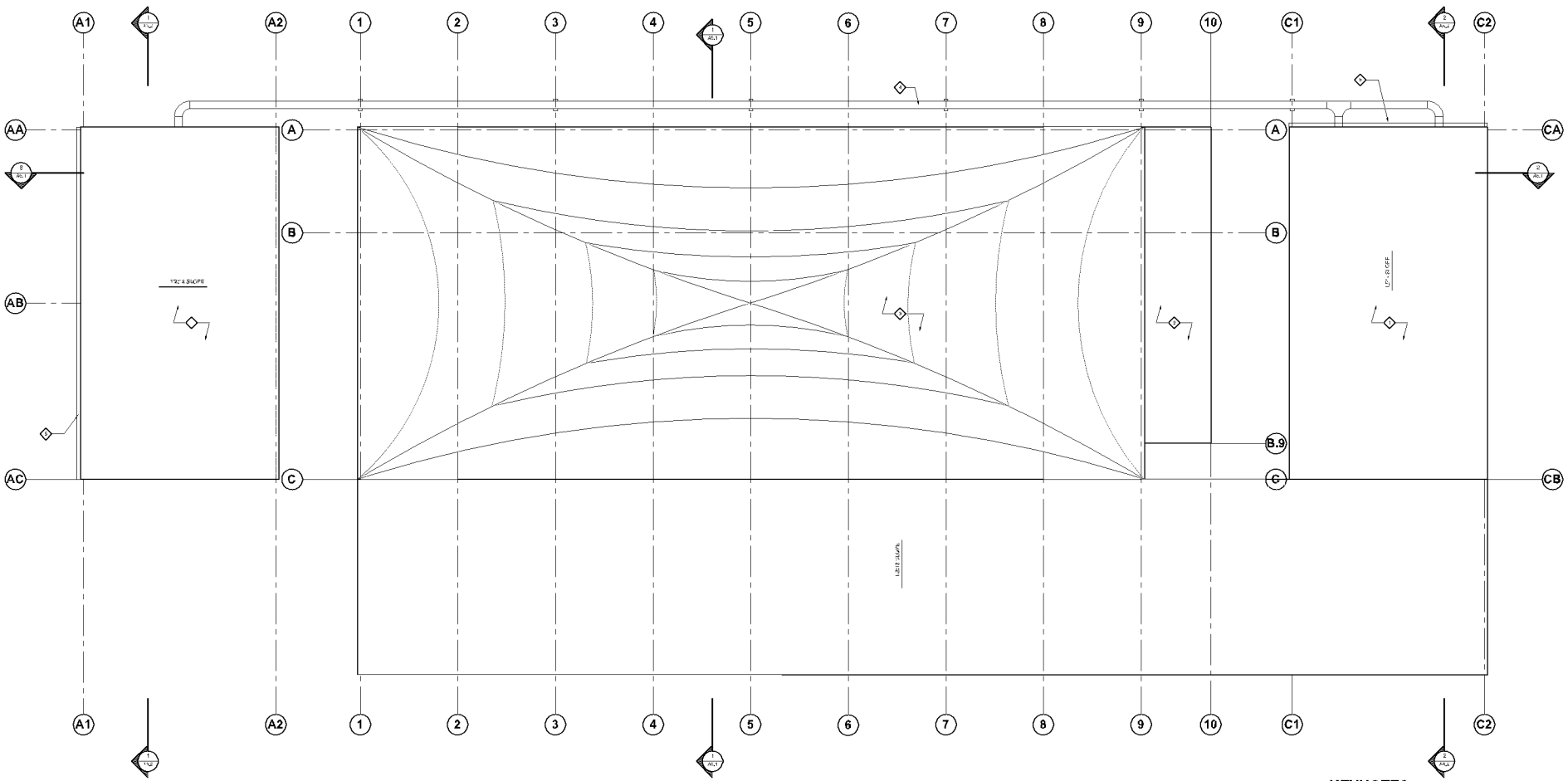
A2.1
FLOOR PLAN

ARCHITECTS ENGINEERS PLANNERS
2700 SATURN STREET
BREA, CA. 92821

APPLICANT
SCAVENGER
BLUELINE TRANSFER INC.

JOB # 4433

16 JUNE 2012



KEYNOTES

- 26 GA. METAL ROOF PANEL
- METAL CONTAINER ROOF
- HDPE BLADDER
- AIR DUCT
- GUTTER

N

SCALE: 3/16"=1'-0"

USE PERMIT MODIFICATION

BLUELINE BIOGENIC CNG FACILITY

500 E. JAMIE COURT
SOUTH SAN FRANCISCO, CALIFORNIA 94080

A3.1
ROOF PLAN

JOB # 4433

16 JUNE 2012

JRM ARCHITECTS ENGINEERS PLANNERS
2780 SATURN STREET
BREA, CA. 92821

ZeroWaste

APPLICANT
SOUTH SAN FRANCISCO SCAVENGER COMPANY INC.
BLUE LINE TRANSFER INC.

EXISTING

PROPOSED

USE PERMIT MODIFICATION

BLUELINE BIOGENIC CNG FACILITY

A5.5
PERSPECTIVE

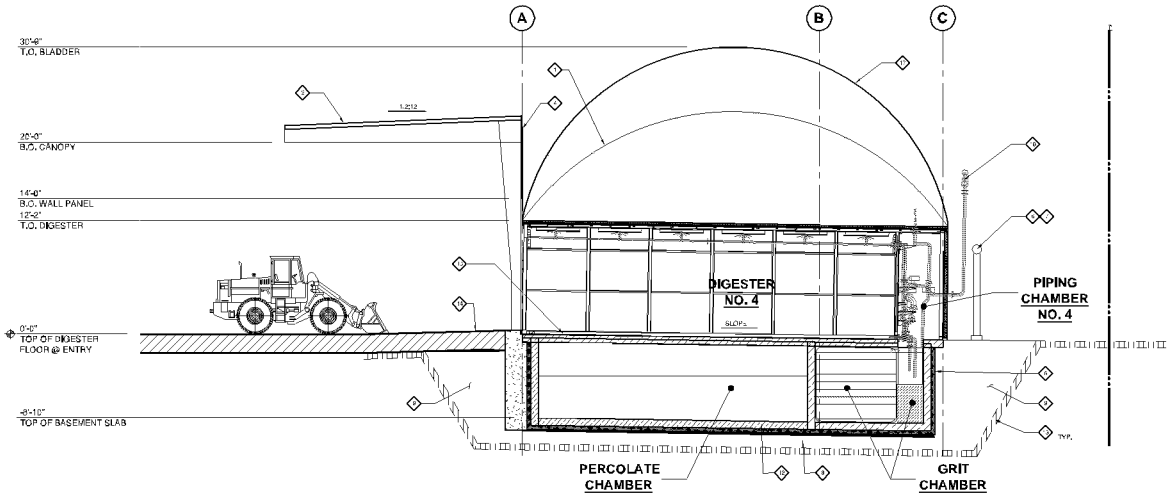
ARCHITECTS
ENGINEERS
PLANNERS
2700 SATURN STREET,
BREA, CA 92821

APPLICANT
SOUTH SAN FRANCISCO SCAVENGER
BLUE LINE TRANSFER, INC.

500 E. JAMIE COURT
SOUTH SAN FRANCISCO, CALIFORNIA 94080

JOB # 4433

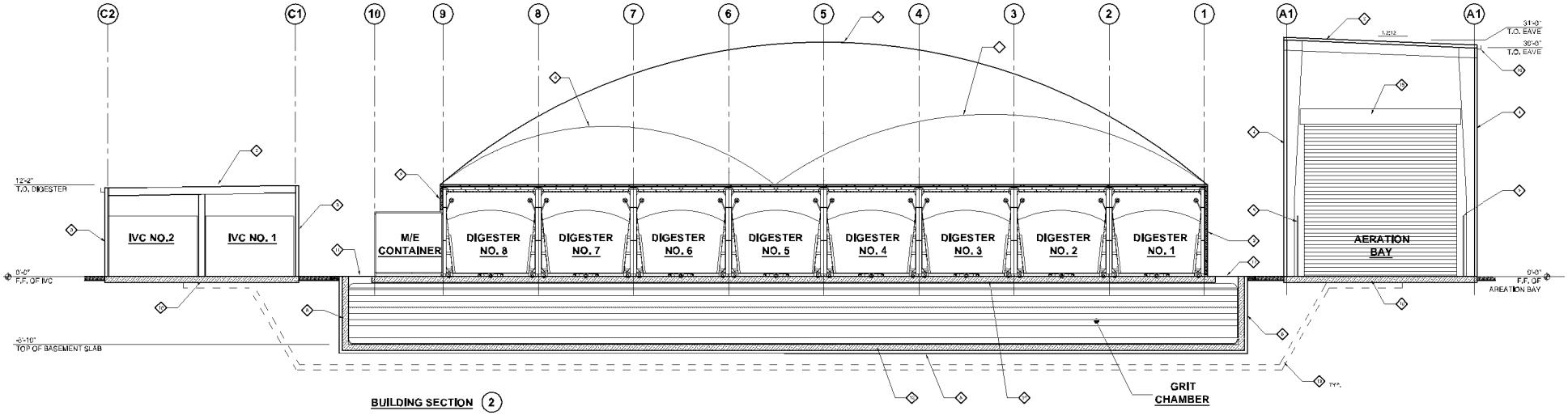
19 JUNE 2012



BUILDING SECTION 1

KEYNOTES

1. BIOGAS STORAGE BLADER
2. METAL ROOF PANEL
3. INSULATED METAL PANEL
4. METAL PANEL (NO INSULATION)
5. STEEL PUSH WALL
6. AIR DUCT
7. DUCT SUPPORT
8. INSULATION W. MEMBRANE
9. REMOVED & RECOMPACTED SUBSTRATE
10. FLOOR SLAB
11. GRIT CHAMBER ACCESS
12. BASEMENT SLAB
13. LIMIT LINE OF EXCAVATION FOR BASEMENT
14. FINISH GRADE/SURFACE
15. COILING DOOR BEYOND
16. GUTTER
17. AIR BLADDER
18. PRESSURE RELIEF VALVE



BUILDING SECTION 2

SCALE: 3/16"=1'-0"

USE PERMIT MODIFICATION

BLUELINE BIOGENIC CNG FACILITY

500 E. JAMIE COURT
SOUTH SAN FRANCISCO, CALIFORNIA 94080

A6.1
BUILDING SECTIONS

JOB # 4433

19 JUNE 2012

ARCHITECTS
ENGINEERS
PLANNERS
2700 SATURN STREET
BREA, CA. 92821

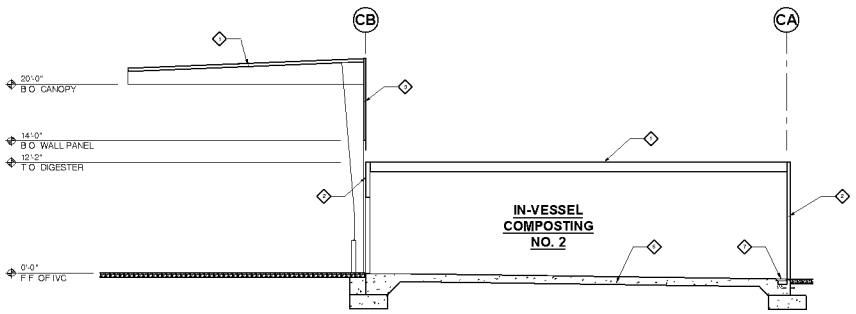
ZeroWaste

APPLICANT
SCAVENGER

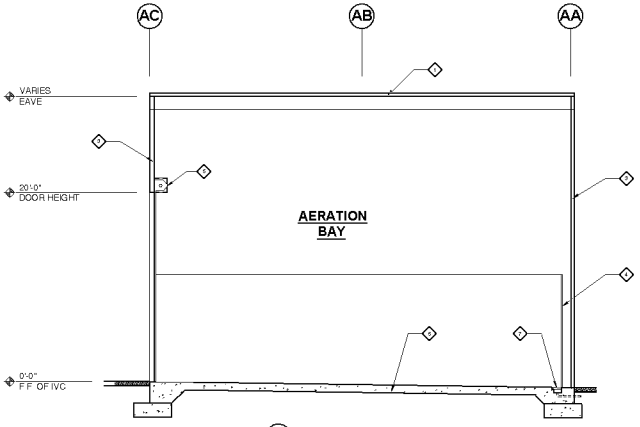
BLUE LINE TRANSFER INC.

KEYNOTES

1. METAL ROOF PANEL
2. INSULATED METAL PANEL
3. METAL PANEL (NO INSULATION)
4. STEEL PUSH WALL
5. FLOOR SLAB
6. COILING DOOR BEYOND
7. TRENCH DRAIN



BUILDING SECTION 1



BUILDING SECTION 2

SCALE: 3/16"=1'-0"
0' 2'-8" 5'-5" 10'-10" 21'-8"

USE PERMIT MODIFICATION

BLUELINE BIOGENIC CNG FACILITY

500 E. JAMIE COURT
SOUTH SAN FRANCISCO, CALIFORNIA 94080

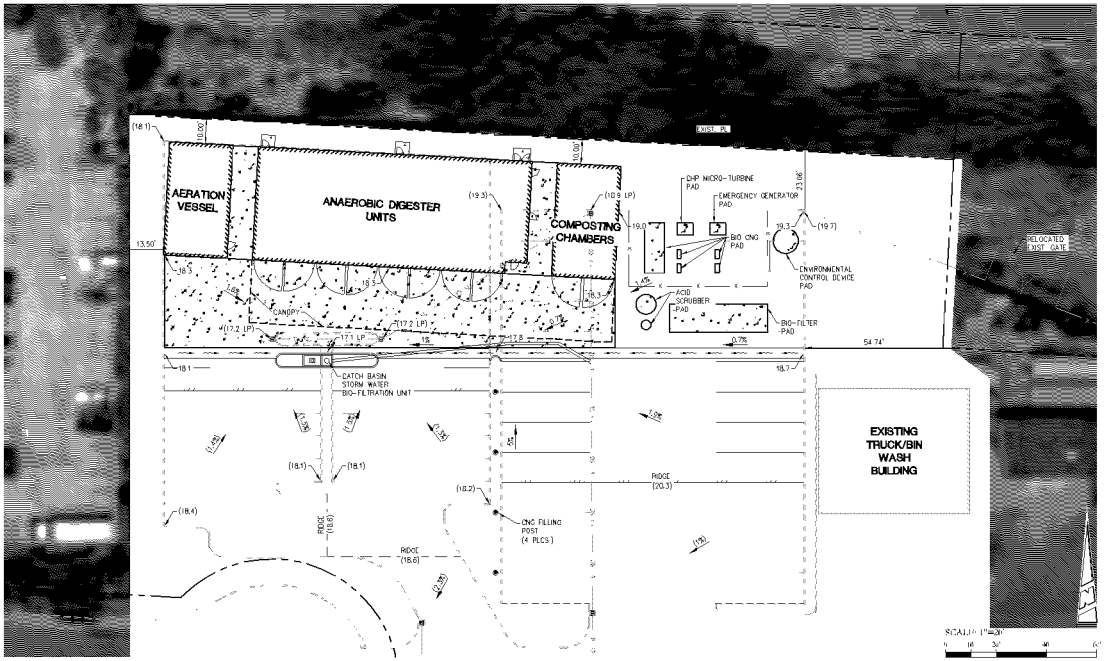
A6.2
BUILDING SECTIONS

JOB # 4433 19 JUNE 2012

ARCHITECTS
ENGINEERS
PLANNERS
2700 SATURN STREET,
BREA, CA 92821

ZeroWaste

APPLICANT
SOUTH SAN FRANCISCO SCAVENGER
BLUE LINE TRANSFER, INC.



LEGEND:

PROP. BUILDING OUTLINE	EXIST. RIGHT-OF-WAY
PROP. CURB	EXIST. CENTERLINE
PROP. CHAIN LINK FENCE	EXIST. BUILDING
PROP. STRIPING	EXIST. STRIPING
PROP. PAVEMENT GRADE	EXIST. CURB
PROP. CONCRETE GUTTER	EXIST. CURB & GUTTER
PROP. STORM DRAIN	EXIST. STORM DRAIN
PROP. EDGE OF AC PAVEMENT	EXIST. CATCH BASIN
PROP. CONCRETE PAVEMENT / PAD	EXIST. ELEVATION, SLOPE

APPLICANT / OWNER:

BLUELINE TRANSFER, INC
500 S. JAMIE COURT
SOUTH SAN FRANCISCO, CA 94080
PHONE: (650) 589-4020
CONTACT: DOUG BUTTON

ARCHITECT / CIVIL ENGINEER:

J.R. MILLER & ASSOCIATES
2700 SATURN STREET, BREA, CA 92821
PHONE: (714) 524-1870
CONTACT:
ARCHITECT: KYLE RAUSCH
EMAIL: KYLER@JRMA.COM

CIVIL ENGINEER: PAUL HACUNDA
EMAIL: PAULH@JRMA.COM

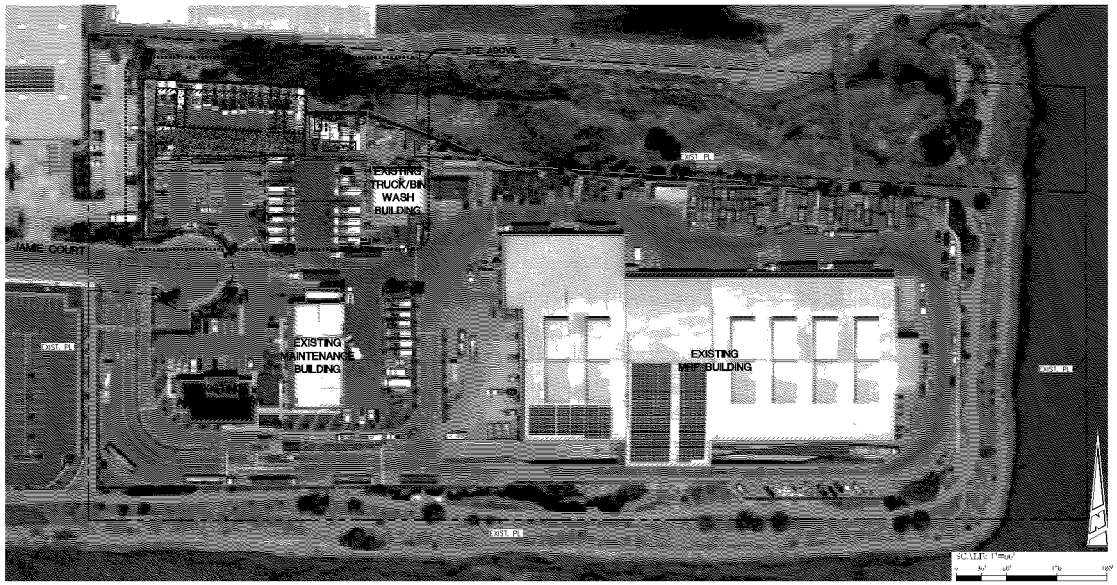
AREAS:

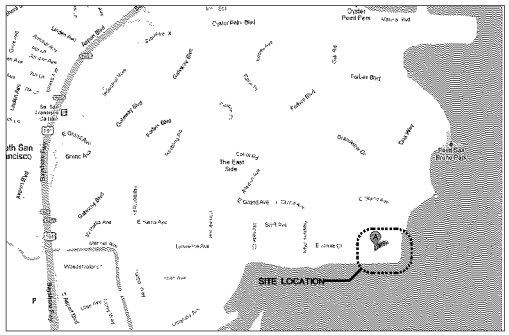
SITE AREA (APPROXIMATELY): 509,215 S.F. (11.7 AC)

DISTURBANCE AREA: 26,616 S.F. (0.6 AC)

PRELIMINARY EARTHWORK:

CUT: 2,230 C.Y.
FILL: 0 C.Y.
EXPORT= 2,230 C.Y.





VICINITY MAP

USE PERMIT MODIFICATION

BLUELINE BIOGENIC CNG FACILITY

500 E. JAMIE COURT
SOUTH SAN FRANCISCO, CALIFORNIA 94080

USE PERMIT MODIFICATION
PRELIMINARY GRADING AND DRAINAGE PLAN

JOB # 4433 — 19 JUNE 2012

J.R.M. ARCHITECTS ENGINEERS PLANNERS
2700 SATURN STREET
BREA, CA. 92821

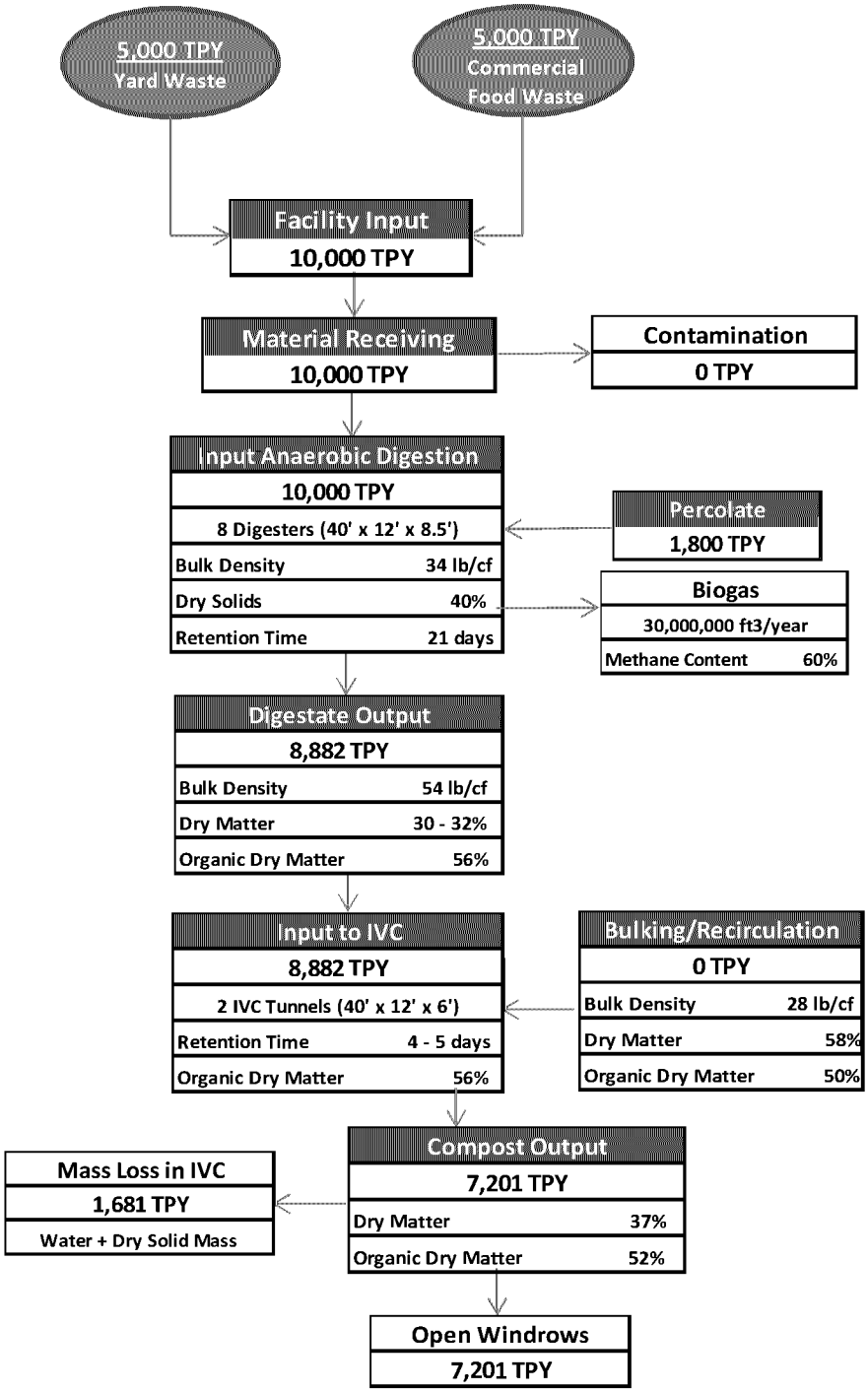
APPLICANT

ZeroWaste

SOUTH SAN FRANCISCO SCAVENGER COMPANY

BLUE LINE TRANSFER, INC.

10,000 TPY Scenario - 8 SmartFerm Digesters
Mass Flows and Material Conversions



Dry Digester Process Notes

Material Aerated until 120 - 130 degrees F

Anaerobic percolation begins after 1 day

Process Temperature: 131 degrees F

Biogas production begins after 1- 2 days

Biogas yield: 3000 cubic feet/ton

Methane content: 60%

High Heating value: 600 btu/cf

IVC Process Notes

IVC input enters tunnels at 105 degrees F

Aerated floor purges residual ammonia

IVC exhaust air pre-treated in acid scrubber and humidifier prior to biofilter

Air and temperature are conituously monitored

Appendix B
Air Quality and Greenhouse Gas Analysis

Contents:

- CalEEMod – Summer Construction Output
- CalEEMod – Annual Construction Output
- Operational Emissions
- CalEEMod Model Inputs

ESA

CALEEMOD – SUMMER CONSTRUCTION OUTPUT

SSF AD Construction

San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Lot	0.44	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	5	**Precipitation Freq (Days)**	70		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Conservatively estimated construction activities and duration based on modular construction of the project

Off-road Equipment - Majority of facility is pre-constructed modules, included this building construction phase to account for module installation and material movement

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Adjusted equipment list to account for soil excavation

Off-road Equipment -

Demolition - Estimates pavement demolished -- assumes 0.44 acres disturbed, 3 inches of pavement, 773 lbs per cubic yard

Grading - Acres disturbed adjusted to match PD

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	2.66	17.63	14.97	0.02	7.44	1.21	8.44	0.44	1.21	1.44	0.00	2,289.27	0.00	0.22	0.00	2,293.88
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	2.66	17.63	14.97	0.02	0.80	1.21	1.85	0.44	1.21	1.44	0.00	2,289.27	0.00	0.22	0.00	2,293.88
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.74	0.00	0.74	0.00	0.00	0.00						0.00
Off-Road	2.00	13.91	9.51	0.02		1.04	1.04		1.04	1.04		1,476.12		0.18		1,479.88
Total	**2.00**	**13.91**	**9.51**	**0.02**	**0.74**	**1.04**	**1.78**	**0.00**	**1.04**	**1.04**		**1,476.12**		**0.18**		**1,479.88**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.20	1.67	1.92	0.00	0.17	0.05	0.22	0.01	0.05	0.06		254.82		0.01		255.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.06	0.68	0.00	0.15	0.00	0.15	0.01	0.00	0.01		117.62		0.01		117.76
Total	**0.26**	**1.73**	**2.60**	**0.00**	**0.32**	**0.05**	**0.37**	**0.02**	**0.05**	**0.07**		**372.44**		**0.02**		**372.82**

3.2 Demolition - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.74	0.00	0.74	0.00	0.00	0.00						0.00
Off-Road	2.00	13.91	9.51	0.02		1.04	1.04		1.04	1.04	0.00	1,476.12		0.18		1,479.88
Total	**2.00**	**13.91**	**9.51**	**0.02**	**0.74**	**1.04**	**1.78**	**0.00**	**1.04**	**1.04**	**0.00**	**1,476.12**		**0.18**		**1,479.88**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.20	1.67	1.92	0.00	0.01	0.05	0.06	0.01	0.05	0.06		254.82		0.01		255.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.06	0.68	0.00	0.01	0.00	0.01	0.01	0.00	0.01		117.62		0.01		117.76
Total	**0.26**	**1.73**	**2.60**	**0.00**	**0.02**	**0.05**	**0.07**	**0.02**	**0.05**	**0.07**		**372.44**		**0.02**		**372.82**

3.3 Grading - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.77	0.00	0.77	0.41	0.00	0.41						0.00
Off-Road	1.87	13.54	9.64	0.02		0.88	0.88		0.88	0.88		1,556.11		0.17		1,559.64
Total	**1.87**	**13.54**	**9.64**	**0.02**	**0.77**	**0.88**	**1.65**	**0.41**	**0.88**	**1.29**		**1,556.11**		**0.17**		**1,559.64**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.49	4.03	4.65	0.01	6.51	0.12	6.63	0.02	0.12	0.14		615.54		0.03		616.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.06	0.68	0.00	0.15	0.00	0.15	0.01	0.00	0.01		117.62		0.01		117.76
Total	**0.55**	**4.09**	**5.33**	**0.01**	**6.66**	**0.12**	**6.78**	**0.03**	**0.12**	**0.15**		**733.16**		**0.04**		**733.88**

3.3 Grading - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.77	0.00	0.77	0.41	0.00	0.41						0.00
Off-Road	1.87	13.54	9.64	0.02		0.88	0.88		0.88	0.88	0.00	1,556.11		0.17		1,559.64
Total	**1.87**	**13.54**	**9.64**	**0.02**	**0.77**	**0.88**	**1.65**	**0.41**	**0.88**	**1.29**	**0.00**	**1,556.11**		**0.17**		**1,559.64**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.49	4.03	4.65	0.01	0.02	0.12	0.14	0.02	0.12	0.14		615.54		0.03		616.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.06	0.68	0.00	0.01	0.00	0.01	0.01	0.00	0.01		117.62		0.01		117.76
Total	**0.55**	**4.09**	**5.33**	**0.01**	**0.03**	**0.12**	**0.15**	**0.03**	**0.12**	**0.15**		**733.16**		**0.04**		**733.88**

3.4 Paving - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.32	14.52	9.76	0.02		1.20	1.20		1.20	1.20		1,408.52		0.21		1,412.88
Paving	0.23					0.00	0.00		0.00	0.00						0.00
Total	**2.55**	**14.52**	**9.76**	**0.02**		**1.20**	**1.20**		**1.20**	**1.20**		**1,408.52**		**0.21**		**1,412.88**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.11	1.22	0.00	0.27	0.01	0.28	0.01	0.01	0.02		211.72		0.01		211.96
Total	**0.11**	**0.11**	**1.22**	**0.00**	**0.27**	**0.01**	**0.28**	**0.01**	**0.01**	**0.02**		**211.72**		**0.01**		**211.96**

3.4 Paving - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.32	14.52	9.76	0.02		1.20	1.20		1.20	1.20	0.00	1,408.52		0.21		1,412.88
Paving	0.23					0.00	0.00		0.00	0.00						0.00
Total	**2.55**	**14.52**	**9.76**	**0.02**		**1.20**	**1.20**		**1.20**	**1.20**	**0.00**	**1,408.52**		**0.21**		**1,412.88**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.11	1.22	0.00	0.01	0.01	0.02	0.01	0.01	0.02		211.72		0.01		211.96
Total	**0.11**	**0.11**	**1.22**	**0.00**	**0.01**	**0.01**	**0.02**	**0.01**	**0.01**	**0.02**		**211.72**		**0.01**		**211.96**

3.5 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.20	16.33	10.77	0.02		1.04	1.04		1.04	1.04		1,945.40		0.20		1,949.52
Total	**2.20**	**16.33**	**10.77**	**0.02**		**1.04**	**1.04**		**1.04**	**1.04**		**1,945.40**		**0.20**		**1,949.52**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

3.5 Building Construction - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.20	16.33	10.77	0.02		1.04	1.04		1.04	1.04	0.00	1,945.40		0.20		1,949.52
Total	**2.20**	**16.33**	**10.77**	**0.02**		**1.04**	**1.04**		**1.04**	**1.04**	**0.00**	**1,945.40**		**0.20**		**1,949.52**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

CALEEMOD – ANNUAL CONSTRUCTION OUTPUT

SSF AD Construction

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Lot	0.44	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	5	**Precipitation Freq (Days)**	70		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Conservatively estimated construction activities and duration based on modular construction of the project

Off-road Equipment - Majority of facility is pre-constructed modules, included this building construction phase to account for module installation and material movement

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Adjusted equipment list to account for soil excavation

Off-road Equipment -

Demolition - Estimates pavement demolished -- assumes 0.44 acres disturbed, 3 inches of pavement, 773 lbs per cubic yard

Grading - Acres disturbed adjusted to match PD

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2013	0.08	0.55	0.42	0.00	0.10	0.03	0.13	0.01	0.03	0.04	0.00	61.46	61.46	0.01	0.00	61.59
Total	**0.08**	**0.55**	**0.42**	**0.00**	**0.10**	**0.03**	**0.13**	**0.01**	**0.03**	**0.04**	**0.00**	**61.46**	**61.46**	**0.01**	**0.00**	**61.59**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2013	0.08	0.55	0.42	0.00	0.01	0.03	0.05	0.01	0.03	0.04	0.00	61.46	61.46	0.01	0.00	61.59
Total	**0.08**	**0.55**	**0.42**	**0.00**	**0.01**	**0.03**	**0.05**	**0.01**	**0.03**	**0.04**	**0.00**	**61.46**	**61.46**	**0.01**	**0.00**	**61.59**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Waste						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Waste						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.34	1.34	0.00	0.00	1.34
Total	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.34**	**1.34**	**0.00**	**0.00**	**1.34**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.23	0.00	0.00	0.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.10
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.33**	**0.33**	**0.00**	**0.00**	**0.33**

3.2 Demolition - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.34	1.34	0.00	0.00	1.34
Total	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.34**	**1.34**	**0.00**	**0.00**	**1.34**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.23	0.00	0.00	0.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.10
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.33**	**0.33**	**0.00**	**0.00**	**0.33**

3.3 Grading - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.22	0.16	0.00		0.01	0.01		0.01	0.01	0.00	23.29	23.29	0.00	0.00	23.34
Total	**0.03**	**0.22**	**0.16**	**0.00**	**0.01**	**0.01**	**0.02**	**0.01**	**0.01**	**0.02**	**0.00**	**23.29**	**23.29**	**0.00**	**0.00**	**23.34**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.07	0.08	0.00	0.08	0.00	0.08	0.00	0.00	0.00	0.00	9.20	9.20	0.00	0.00	9.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.61	1.61	0.00	0.00	1.62
Total	**0.01**	**0.07**	**0.09**	**0.00**	**0.08**	**0.00**	**0.08**	**0.00**	**0.00**	**0.00**	**0.00**	**10.81**	**10.81**	**0.00**	**0.00**	**10.83**

3.3 Grading - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.22	0.16	0.00		0.01	0.01		0.01	0.01	0.00	23.29	23.29	0.00	0.00	23.34
Total	**0.03**	**0.22**	**0.16**	**0.00**	**0.01**	**0.01**	**0.02**	**0.01**	**0.01**	**0.02**	**0.00**	**23.29**	**23.29**	**0.00**	**0.00**	**23.34**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.07	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.20	9.20	0.00	0.00	9.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.61	1.61	0.00	0.00	1.62
Total	**0.01**	**0.07**	**0.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**10.81**	**10.81**	**0.00**	**0.00**	**10.83**

3.4 Paving - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.01	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	3.19	3.19	0.00	0.00	3.20
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.04**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**3.19**	**3.19**	**0.00**	**0.00**	**3.20**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.00	0.00	0.44
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.44**	**0.44**	**0.00**	**0.00**	**0.44**

3.4 Paving - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.01	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	3.19	3.19	0.00	0.00	3.20
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.04**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**3.19**	**3.19**	**0.00**	**0.00**	**3.20**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.00	0.00	0.44
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.44**	**0.44**	**0.00**	**0.00**	**0.44**

3.5 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.20	0.13	0.00		0.01	0.01		0.01	0.01	0.00	22.05	22.05	0.00	0.00	22.10
Total	**0.03**	**0.20**	**0.13**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**22.05**	**22.05**	**0.00**	**0.00**	**22.10**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.5 Building Construction - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.20	0.13	0.00		0.01	0.01		0.01	0.01	0.00	22.05	22.05	0.00	0.00	22.10
Total	**0.03**	**0.20**	**0.13**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**22.05**	**22.05**	**0.00**	**0.00**	**22.10**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Parking Lot	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Parking Lot	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					0.00	0.00	0.00	0.00
Unmitigated					0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Parking Lot	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Parking Lot	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					0.00	0.00	0.00	0.00
Unmitigated					0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Parking Lot	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Parking Lot	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

9.0 Vegetation

OPERATIONAL EMISSIONS

Air Quality and Greenhouse Gas Analysis

On-Road Mobile Sources

CNG Truck (30 miles per day, 5 days per week)

Pollutant	CNG (g/mi)	g/day	lbs/day	tons/yr
VOC	0.048	1.44	0	0
Nox	0.687	20.61	0	0
CO	0.907	27.21	0.1	0
PM10	0.672	20.16	0	0
CO2e	2115	63450	139.9	16

Ref: Figure A-11 for CNG from August 2007 Full Fuel Cycle Assessment: Well-to-Wheels Energy Inputs, Emissions, and Water Impacts, CEC-600-2007-004-REV

Employees (2 employees, 20 miles per day, 7 days per week)

Pollutant	RFG (g/mi)	g/day	lbs/day	tons/yr
VOC	0.394	15.76	0	0
Nox	0.557	22.28	0	0
CO	3.004	120.16	0.3	0
PM10	0.604	24.16	0.1	0
CO2e	377	15080	33.2	5

Ref: Figure A-1 for Gasoline LDA from August 2007 Full Fuel Cycle Assessment: Well-to-Wheels Energy Inputs, Emissions, and Water Impacts, CEC-600-2007-004-REV

Front-End Loader

Pollutant	Diesel (g/hr)	hr/day	lbs/day	tons/yr
VOC	31.8	3.5	0.2	0
Nox	244.9	3.5	1.9	0
CO	149.7	3.5	1.2	0
PM	13.6	3.5	0.1	0
CO2	38500	3.5	297.1	35

Microturbine

Pollutant	Emission Factor	g/yr	lbs/day	tpy	GWP	CO2e (metric tpy)
Methane	0.02% pass through	110148	0.7	0.1	25	2.5
VOC	0.045 g/kwhr	29138	0.2	0		
Nox	0.209 g/kwhr	134034	0.8	0.1		
CO	1.814 g/kwhr	116551	0.7	0.1		
CO2	53060 g/MMBTu	486402556	2937.9	486.4	1	486.4
				Total		489 MT CO2e/yr

Conversion Factors		
9058329	ft3/yr	
1012	BTU/cf	
53.06	kgCO2/MMBtu	
1 kwh =	3412	BTU
9167.02895	MMBTU/yr	

Grid Electricity

Project Annual Electrical Use: 520,344 kWh (kilowatt hours)/year
CO2e Factor 378 g CO2e/kWhr
Total 197 MT CO2e/yr

Composting/Bio-Filter

Project Annual Compost: 8,882 tons per year

	Emission Factc lb/ton	Annual Project tonnage	Annual GHGs metric tons	CO2 Equivalent Factor	Annual CO2 Equivalent Emissions (metric tons)
CH4	0.83	8,882	3.3	25	84

VOC	EF (lb/ton)	Project tonnage	lb/day	tpy	
	2.6	8882	6.3	1.1	includes 90% reduction from biofilter

CH4 Factor from South Coast Air Quality Management District (SCAQMD). 2001. *Ammonia and Volatile Organic Compound (VOC) Emissions from a Greenwaste Composting Operation.*

VOC Factor from California Integrated Waste Management Board (CIWMB), 2007. *Emissions Testing of Volatile Organic Compounds from Greenwaste Composting at the Modesto Compost Facility in the San Joaquin Valley.* October 31, 2007, revised May 2008.

Lean Gas Flare

LGF emission estimates for 10,000 tpy (Enclosed Flare, 1600^{O}F)

NOx: .08 lb/MMBTU –		0.05 tpy	0.8 lbs/day
CO: .20 lb/MMBTU –		0.07 tpy	1.2 lbs/day
CO2:	116.9771372 lb/MMBTU	66.3 metric ton/yr	

Note: The LGF is only intermittently operated for 3 to 4 hours per digester termination which occur every 2.5 to 3 days. Thus, daily emissions are based on occurring day rather than averaged 365 days.

100 lbs/yr
1250 MMBTU/yr

CALEEMOD MODEL INPUTS

tblProjectCharacteristics

ProjectName	LocationScope	EMFAC_ID	WindSpeed	PrecipitationFrequency	ClimateZone	UrbanizationLevel	OperationalYear	UtilityCompany	CO2IntensityFactor	CH4IntensityFactor	N2OIntensityFactor	TotalPopulation	TotalLotAcreage	UsingHistoricalEnergyUseData
SSF AD Construction	C	SM	2.2	70	5	Urban	2013	Pacific Gas & Electric Company	641.35	0.029	0.011	0	0.44	0

tblPollutants

PollutantSelection	PollutantFullName	PollutantName
1	Reactive Organic Gases (ROG)	ROG
1	Nitrogen Oxides (NOx)	NOX
1	Carbon Monoxide (CO)	CO
1	Sulfur Dioxide (SO2)	SO2
1	Particulate Matter 10um (PM10)	PM10
1	Particulate Matter 2.5um (PM2.5)	PM2_5
1	Fugitive PM10um (PM10)	PM10_FUG
1	Fugitive PM2.5um (PM2.5)	PM25_FUG
1	Total Organic Gases (TOG)	TOG
1	Lead (Pb)	PB
1	Biogenic Carbon Dioxide (CO2)	CO2_BIO
1	Non-Biogenic Carbon Dioxide (CO2)	CO2_NBIO
1	Carbon Dioxide (CO2)	CO2
1	Methane (CH4)	CH4
1	Nitrous Oxide (N2O)	N2O
1	CO2 Equivalent GHGs (CO2e)	CO2E

tblLandUse

LandUseType	LandUseSubType	LandUseUnitAmount	LandUseSizeMetric	LotAcreage	LandUseSquareFeet	Population
Parking	Parking Lot	0.44	Acre	0.44	0	0

tblConstructionPhase

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysWeek	NumDays	PhaseDescription
1	Demolition	Demolition	2013/04/01	2013/04/02	5	2	Parking Lot Demolition
2	Grading	Grading	2013/04/03	2013/05/17	5	33	Grading and Excavation
3	Paving	Paving	2013/05/19	2013/05/25	5	5	
4	Building Construction	Building Construction	2013/05/26	2013/06/30	5	25	

tblOffRoadEquipment

PhaseName	OffRoadEquipmentType	OffRoadEquipmentUnitAmount	UsageHours	HorsePower	LoadFactor
Demolition	Concrete/Industrial Saws	1	8	81	0.73
Demolition	Rubber Tired Dozers	1	1	358	0.59
Demolition	Tractors/Loaders/Backhoes	2	6	75	0.55
Grading	Excavators	1	6	157	0.57
Grading	Rubber Tired Dozers	1	1	358	0.59
Grading	Tractors/Loaders/Backhoes	2	6	75	0.55
Paving	Cement and Mortar Mixers	4	6	9	0.56
Paving	Pavers	1	7	89	0.62
Paving	Rollers	1	7	84	0.56
Paving	Tractors/Loaders/Backhoes	1	7	75	0.55
Building Construction	Cranes	1	4	208	0.43
Building Construction	Forklifts	2	6	149	0.3
Building Construction	Tractors/Loaders/Backhoes	2	8	75	0.55

PhaseName	WorkerTripNumber	VendorTripNumber	HaulingTripNumber	WorkerTripLength	VendorTripLength	HaulingTripLength	WorkerVehicleClass	VendorVehicleClass	HaulingVehicleClass
Demolition	10	0	7	12.4	7.3	20	LD_Mix	HDT_Mix	HHDT
Grading	10	0	279	12.4	7.3	20	LD_Mix	HDT_Mix	HHDT
Paving	18	0	0	12.4	7.3	20	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0	0	12.4	7.3	20	LD_Mix	HDT_Mix	HHDT

PhaseName	WorkerPercentPave	VendorPercentPave	HaulingPercentPave	RoadSiltLoading	MaterialSiltContent	MaterialMoistureContent	AverageVehicleWeight	MeanVehicleSpeed
Demolition	100	100	100	0.1	8.5	0.5	2.4	40
Grading	100	100	100	0.1	8.5	0.5	2.4	40
Paving	100	100	100	0.1	8.5	0.5	2.4	40
Building Construction	100	100	100	0.1	8.5	0.5	2.4	40

PhaseName	DemolitionSizeMetric	DemolitionUnitAmount
Demolition	Ton of Debris	69

PhaseName	MaterialImported	MaterialExported	GradingSizeMetric	ImportExportPhased	MeanVehicleSpeed	AcresOfGrading	MaterialMoistureContentBulldozing	MaterialMoistureContentTruckLoading	MaterialSiltContent
Grading	0	2230	Cubic Yards	0	7.1	0.44	7.9	12	6.9

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	FleetMix	0.556765	0.123781	0.206101	0.065123	0.008548	0.005962	0.016145	0.003349	0.001649	0.003477	0.007552	0.000338	0.00121
A	CH4_IDLEX	0	0	0	0	0.0015	0.0013	0.0009	0.03	0.0011	0	0	0.04	0
A	CH4_RUNEX	0.01	0.02	0.02	0.03	0.02	0.02	0.01	0.06	0.02	0.04	0.22	0.05	0.05
A	CH4_STREX	0.01	0.02	0.01	0.03	0.02	0.02	0.03	0.21	0.03	0.03	0.15	0.06	0.06
A	CO_IDLEX	0	0	0	0	0.21	0.19	0.14	3.4	0.17	0	0	1.18	0
A	CO_RUNEX	1.46	3.25	1.87	2.41	2.29	3.11	2.96	10.11	3.35	4.54	32.2	10.25	11.12
A	CO_STREX	3.6	6.24	4.35	6.18	5.06	6.54	7.87	56.17	10.96	9.68	10.14	15.31	18.07
A	CO2_IDLEX	0	0	0	0	8.0685	8.415	12.4938	45.7265	11.5335	0	0	560.1618	0
A	CO2_RUNEX	339.6294	425.2644	434.2734	593.7723	858.1815	782.496	1356.498	1609.994	1251.8154	2240.8254	153.4104	1296.434	772.6455
A	CO2_STREX	68.0328	83.952	85.9122	118.2555	37.521	31.6701	13.2462	33.957	19.1466	24.7104	46.4904	34.0659	36.0558
A	NOX_IDLEX	0	0	0	0	0.02	0.04	0.18	8.1	0.13	0	0	7.44	0
A	NOX_RUNEX	0.14	0.33	0.25	0.37	1.13	1.91	5.53	10.12	4.2	13.82	1.24	9.58	2.21
A	NOX_STREX	0.21	0.33	0.37	0.63	1.42	1.35	0.81	5.99	1.34	1.08	0.31	1.1	1.28
A	PM10_IDLEX	0	0	0	0	0.0002	0.0005	0.0021	0.08	0.0015	0	0	0.12	0
A	PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0087	0.004	0.01	0.01
A	PM10_RUNEX	0.0098	0.01	0.02	0.02	0.02	0.03	0.18	0.3	0.13	0.24	0.02	0.4	0.02
A	PM10_STREX	0.0049	0.007	0.01	0.01	0.0017	0.0022	0.0012	0.004	0.002	0.0019	0.01	0.0025	0.001
A	PM25_IDLEX	0	0	0	0	0.0002	0.0005	0.0021	0.08	0.0015	0	0	0.12	0
A	PM25_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
A	PM25_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0087	0.004	0.01	0.01
A	PM25_RUNEX	0.0098	0.01	0.02	0.02	0.02	0.03	0.18	0.3	0.13	0.24	0.02	0.4	0.02
A	PM25_STREX	0.0049	0.007	0.01	0.01	0.0017	0.0022	0.0012	0.004	0.002	0.0019	0.01	0.0025	0.001
A	ROG_DIURN	0.05	0.09	0.04	0.05	0.0012	0.0018	0.0005	0.0013	0.0004	0.0021	0.56	0.0096	1.24
A	ROG_HTSK	0.14	0.22	0.12	0.13	0.03	0.05	0.01	0.04	0.01	0.05	0.35	0.09	0.1
A	ROG_IDLEX	0	0	0	0	0.03	0.03	0.02	0.75	0.02	0	0	1.05	0
A	ROG_RESTL	0.04	0.06	0.03	0.04	0.0004	0.0006	0.0002	0.0006	0.0002	0.0011	0.29	0.0035	0.46
A	ROG_RUNEX	0.04	0.11	0.05	0.07	0.21	0.31	0.23	1.05	0.23	0.81	3.04	0.83	0.42
A	ROG_RUNLS	0.078245	0.191177	0.100734	0.106924	0.373421	0.603667	0.112665	0.075162	0.110121	0.010004	0.389105	0.07694	0.023897
A	ROG_STREX	0.29	0.46	0.32	0.58	0.4	0.51	0.52	3.63	0.65	0.67	2.42	1.05	1.09
A	SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.0044	0.0001	0	0	0.0055	0
A	SO2_RUNEX	0.0035	0.0044	0.0044	0.006	0.0084	0.0076	0.01	0.01	0.01	0.02	0.0021	0.01	0.0077
A	SO2_STREX	0.0008	0.001	0.0009	0.0013	0.0005	0.0004	0.0003	0.0013	0.0004	0.0004	0.0007	0.0006	0.0007
A	TOG_DIURN	0.05	0.09	0.04	0.05	0.0012	0.0018	0.0005	0.0013	0.0004	0.0021	0.56	0.0096	1.24
A	TOG_HTSK	0.14	0.22	0.12	0.13	0.03	0.05	0.01	0.04	0.01	0.05	0.35	0.09	0.1
A	TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	0.86	0.02	0	0	1.14	0
A	TOG_RESTL	0.04	0.06	0.03	0.04	0.0004	0.0006	0.0002	0.0006	0.0002	0.0011	0.29	0.0035	0.46
A	TOG_RUNEX	0.06	0.14	0.07	0.1	0.24	0.35	0.27	1.17	0.26	0.9	3.31	0.93	0.48
A	TOG_RUNLS	0.078245	0.191177	0.100734	0.106924	0.373421	0.603667	0.112665	0.075162	0.110121	0.010004	0.389105	0.07694	0.023897
A	TOG_STREX	0.31	0.49	0.34	0.62	0.43	0.54	0.56	3.89	0.7	0.72	2.61	1.12	1.16
S	FleetMix	0.556765	0.123781	0.206101	0.065123	0.008548	0.005962	0.016145	0.003349	0.001649	0.003477	0.007552	0.000338	0.00121
S	CH4_IDLEX	0	0	0	0	0.0015	0.0013	0.0009	0.03	0.0011	0	0	0.04	0
S	CH4_RUNEX	0.01	0.03	0.02	0.03	0.02	0.03	0.01	0.06	0.02	0.04	0.21	0.05	0.05
S	CH4_STREX	0.01	0.02	0.01	0.02	0.01	0.02	0.02	0.16	0.03	0.03	0.12	0.05	0.04
S	CO_IDLEX	0	0	0	0	0.21	0.19	0.14	2.34	0.17	0	0	7.18	0
S	CO_RUNEX	1.65	3.56	2.12	2.74	2.35	3.2	2.99	10.3	3.41	4.58	29.79	10.27	11.87
S	CO_STREX	2.41	4.19	2.89	4.53	3.36	4.31	5.5	41.08	7.6	7.23	8.78	11.99	11.6
S	CO2_IDLEX	0	0	0	0	8.0685	8.415	12.4938	489.3966	11.5335	0	0	560.1618	0
S	CO2_RUNEX	372.0024	462.7815	474.4674	648.6678	858.1815	782.496	1356.498	1609.994	1251.8154	2240.8254	153.4104	1296.434	772.6455
S	CO2_STREX	68.0328	83.952	85.9122	118.2555	37.521	31.6701	13.2462	33.957	19.1466	24.7104	46.4904	34.0659	36.0558
S	NOX_IDLEX	0	0	0	0	0.02	0.04	0.18	8.45	0.13	0	0	7.44	0
S	NOX_RUNEX	0.13	0.32	0.23	0.35	1.12	1.91	5.55	10.11	4.19	13.89	1.17	9.61	2.14
S	NOX_STREX	0.19	0.29	0.32	0.56	1.32	1.25	0.75	5.55	1.24	0.99	0.29	1.01	1.18
S	PM10_IDLEX	0	0	0	0	0.0002	0.0005	0.0021	0.07	0.0015	0	0	0.12	0
S	PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
S	PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0087	0.004	0.01	0.01
S	PM10_RUNEX	0.0098	0.01	0.02	0.02	0.02	0.03	0.18	0.3	0.13	0.24	0.02	0.4	0.02
S	PM10_STREX	0.0049	0.007	0.01	0.01	0.0017	0.0022	0.0012	0.004	0.002	0.0019	0.01	0.0025	0.001
S	PM25_IDLEX	0	0	0	0	0.0002	0.0005	0.0021	0.07	0.0015	0	0	0.12	0
S	PM25_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
S	PM25_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0087	0.004	0.01	0.01
S	PM25_RUNEX	0.0098	0.01	0.02	0.02	0.02	0.03	0.18	0.3	0.13	0.24	0.02	0.4	0.02
S	PM25_STREX	0.0049	0.007	0.01	0.01	0.0017	0.0022	0.0012	0.004	0.002	0.0019	0.01	0.0025	0.001
S	ROG_DIURN	0.15	0.27	0.13	0.14	0.0031	0.0048	0.0014	0.0036	0.0011	0.0056	1.83	0.02	3.21
S	ROG_HTSK	0.16	0.26	0.14	0.15	0.04	0.06	0.01	0.04	0.01	0.05	0.47	0.09	0.11
S	ROG_IDLEX	0	0	0	0	0.03	0.03	0.02	0.7	0.02	0	0	1.05	0
S	ROG_RESTL	0.09	0.16	0.09	0.1	0.001	0.0014	0.0005	0.0015	0.0005	0.0025	1.01	0.0082	1.06
S	ROG_RUNEX	0.04	0.11	0.05	0.07	0.22	0.32	0.23	1.06	0.23	0.82	2.86	0.85	0.43
S	ROG_RUNLS	0.072989	0.171423	0.091787	0.097106	0.358381	0.578551	0.110329	0.075162	0.107079	0.009153	0.357013	0.068211	0.023181
S	ROG_STREX	0.21	0.35	0.24	0.43	0.31	0.39	0.4	2.83	0.51	0.56	1.9	0.81	0.76
S	SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.0041	0.0001	0	0	0.0055	0
S	SO2_RUNEX	0.0039	0.0048	0.0048	0.0066	0.0084	0.0076	0.01	0.01	0.01	0.02	0.002	0.01	0.0077
S	SO2_STREX	0.0007	0.0009	0.0009	0.0013	0.0004	0.0004	0.0002	0.001	0.0003	0.0004	0.0006	0.0005	0.0005
S	TOG_DIURN	0.15	0.27	0.13	0.14	0.0031	0.0048	0.0014	0.0036	0.0011	0.0056	1.83	0.02	3.21
S	TOG_HTSK	0.16	0.26	0.14	0.15	0.04	0.06	0.01	0.04	0.01	0.05	0.47	0.09	0.11
S	TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	0.8	0.02	0	0	1.14	0
S	TOG_RESTL	0.09	0.16	0.09	0.1	0.001	0.0014	0.0005	0.0015	0.0005	0.0025	1.01	0.0082	1.06
S	TOG_RUNEX	0.06	0.14	0.07	0.11	0.25	0.36	0.27	1.19	0.27	0.92	3.12	0.94	0.49
S	TOG_RUNLS	0.072989	0.171423	0.091787	0.097106	0.358381	0.578551	0.110329	0.075162	0.107079	0.009153	0.357013	0.068211	0.023181
S	TOG_STREX	0.23	0.37	0.25	0.46	0.33	0.42	0.43	3.03	0.55	0.6	2.04	0.94	0.81
W	FleetMix	0.556765	0.123781	0.206101	0.065123	0.008548	0.005962	0.016145	0.003349	0.001649	0.003477	0.007552	0.000338	0.00121
W	CH4_IDLEX	0	0	0	0	0.0015	0.0013	0.0009	0.03	0.0011	0	0	0.04	0
W	CH4_RUNEX	0.01	0.02	0.02	0.03	0.02	0.02	0.01	0.06	0.02	0.04	0.22	0.05	0.05
W	CH4_STREX	0.01	0.02	0.01	0.03	0.02	0.03	0.03	0.22	0.04	0.04	0.16	0.06	0.07
W	CO_IDLEX	0	0	0	0	0.21	0.19	0.14	4.45	0.17	0	0	7.18	0
W	CO_RUNEX	1.45	3.26	1.86	2.41	2.28	3.1	2.96	10.07	3.33	4.54	33.42	10.3	11.75
W	CO_STREX	3.89	6.75	4.7	7.33	5.6	7.23	8.61	60.97	12	10.37	11.36	16.64	20.08
W	CO2_IDLEX	0	0	0	0	8.0685	8.415	12.4938	426.0663	11.5335	0	0	560.1618	0
W	CO2_RUNEX	337.3425	422.6607	431.4321	589.8915	858.1815	782.496	1356.498	1609.994	1251.8154	2240.8254	153.4104	1296.434	772.6455
W	CO2_STREX	68.0328	83.952	85.9122	118.2555	37.521	31.6701	13.2462	33.957	19.1466	24.7104	46.4904	34.0659	36.0558
W	NOX_IDLEX	0	0	0	0	0.02	0.04	0.18	7.75	0.13	0	0	7.44	0
W	NOX_RUNEX	0.15	0.35	0.26	0.39	1.16	1.96	5.67	10.42	4.32	14.14	1.31	9.83	2.3
W	NOX_STREX	0.22	0.33	0.38	0.65	1.45	1.38	0.83	6.12	1.37	1.1	0.32	1.13	1.3
W	PM10_IDLEX	0	0	0	0	0.0002	0.0005	0.0021	0.1	0.0015	0	0	0.12	0
W	PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
W	PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0087	0.004	0.01	0.01
W	PM10_RUNEX	0.0098	0.01	0.02	0.02	0.02	0.03	0.18	0.3	0.13	0.24	0.02	0.4	0.02
W	PM10_STREX	0.0049	0.007	0.01	0.01	0.0017	0.0022	0.0012	0.004	0.002	0.0019	0.01	0.0025	0.001
W	PM25_IDLEX	0	0	0	0	0.0002	0.0005	0.0021	0.1	0.0015	0	0	0.12	0
W	PM25_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
W	PM25_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0087	0.004	0.01	0.01
W	PM25_RUNEX	0.0098	0.01	0.02	0.02	0.02	0.03	0.18	0.3	0.13	0.24	0.02	0.4	0.02
W	PM25_STREX	0.0049	0.007	0.01	0.01	0.0017	0.0022	0.0012	0.004	0.002	0.0019	0.01	0.0025	0.001
W	ROG_DIURN	0.06	0.1	0.05	0.05	0.0013	0.002	0.0006	0.0014	0.0005	0.0028	0.64	0.01	1.41
W	ROG_HTSK	0.17	0.27	0.14	0.16	0.05	0.07	0.02	0.05	0.01	0.07	0.51	0.12	0.15
W	ROG_IDLEX	0	0	0	0	0.03	0.03	0.02	0.81	0.02	0	0	1.05	0
W	ROG_RESTL	0.02	0.04	0.02	0.02	0.0002	0.0003	0.0001	0.0003	0.0001	0.0007	0.16	0.002	0.26
W	ROG_RUNEX	0.04	0.11	0.05	0.07	0.21	0.3	0.23	1.04	0.22	0.8	3.1	0.83	0.42
W	ROG_RUNLS	0.091788	0.235491	0.123811	0.130869	0.416312	0.674738	0.121907	0.080497	0.120063	0.012106	0.469636	0.093821	0.025612
W	ROG_STREX	0.3	0.49	0.33	0.61	0.43	0.55	0.56	3.89	0.7	0.7	2.58	1.11	1.19
W	SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.0041	0.0001	0	0	0.0055	0
W	SO2_RUNEX	0.0035	0.0044	0.0044	0.006	0.0084	0.0076	0.01	0.01	0.01	0.02	0.0021	0.01	0.0077
W	SO2_STREX	0.0008	0.001	0.0009	0.0013	0.0005	0.0004	0.0003	0.0014	0.0004	0.0004	0.0007	0.0006	0.0007
W	TOG_DIURN	0.06	0.1	0.05	0.05	0.0013	0.002	0.0006	0.0014	0.0005	0.0028	0.64	0.01	1.41
W	TOG_HTSK	0.17	0.27	0.14	0.16	0.05	0.07	0.02	0.05	0.01	0.07	0.51	0.12	0.15
W	TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	0.92	0.02	0	0	1.14	0
W	TOG_RESTL	0.02	0.04	0.02	0.02	0.0002	0.0003	0.0001	0.0003	0.0001	0.0007	0.16	0.002	0.26
W	TOG_RUNEX	0.06	0.14	0.07	0.1	0.24	0.34	0.27	1.17	0.26	0.9	3.38	0.92	0.48
W	TOG_RUNLS	0.091788	0.235491	0.123811	0.130869	0.416312	0.674738	0.121907	0.080497	0.120063	0.012106	0.469636	0.093821	0.025612
W	TOG_STREX	0.32	0.53	0.36	0.66	0.46	0.58	0.61	4.16	0.75	0.75	2.78	1.19	1.27

tblRoadDust

RoadPercentPave	RoadSiltLoading	MaterialSiltContent	MaterialMoistureContent	MobileAverageVehicleWeight	MeanVehicleSpeed
100	0.1	4.3	0.5	2.4	40

SubModuleID	PhaseName	Season	Remarks
1			
3			
4			Conservatively estimated construction activities and duration based on modular construction of the project
5	Building Construction		Majority of facility is pre-constructed modules, included this building construction phase to account for module installation and material movement
5	Demolition		
5	Excavation		
5	Grading		Adjusted equipment list to account for soil excavation
5	Grading and Excavation		Adjusted default equip list to account for soil excavation
5	Parking Lot Demolition		
5	Paving		
8			Estimates pavement demolished -- assumes 0.44 acres disturbed, 3 inches of pavement, 773 lbs per cubic yard
9			Acres disturbed adjusted to match PD

Appendix C

Roadway Construction Noise Moden (RCNM) Output

ESA

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 06/25/2012
Case Description: SSF AD

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Industrial/Office Use	Industrial	60.0	60.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Front End Loader	No	100		79.1	82.0	5.0

Results

	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Front End Loader	69.8	69.8	90.0	70.0	90.0	70.0	90.0	70.0	None	None	None	None	None	None
Total	69.8	69.8	90.0	70.0	90.0	70.0	90.0	70.0	None	None	None	None	None	None

Appendix D
Eggersmann and Smartferm

Eggersmann Construction

Eggersmann Facility Management

Eggersmann Group

Eggersmann Plant Construction

Eggersmann Kompotec

Making use of synergies

- Project development
- Engineering and approval
- Turn-key construction works
- Complete system technology from our own production
- Operating experience Commissioning Trial and optimisation operation
- After Sales support
- Schooling and maintenance

We look forward to receiving your contact details.

Headquarter

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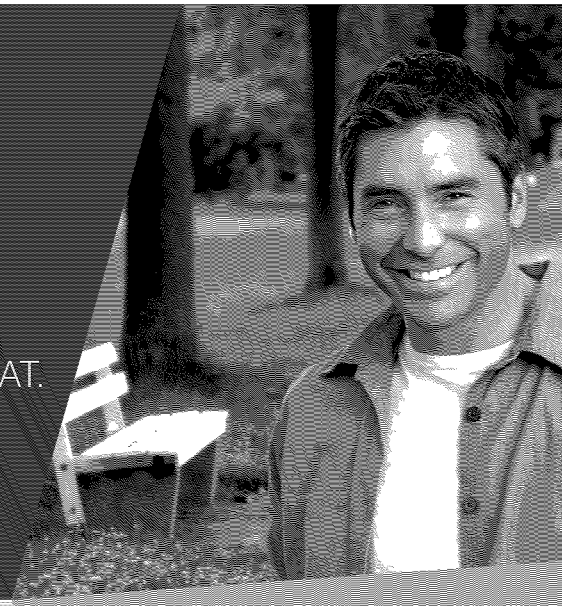
Fax: +49 (0)5247 9808-40

Internet

www.f-e.de
info@f-e.de

MAINTAIN GREEN SPACES. RECOVER POWER AND HEAT.

THINK SMART. ACT SMART.



SMARTFERM
The first semi-mobile dry fermentation system for processing substrate quantities of up to approx. 4.000 Mg/a

SMART
SEMI-MOBILE DRY FERMENTATION

Eggersmann Plant Construction

SMARTFERM
The smart investment for agribusinesses and farms.

Eggersmann Plant Construction presents its new SMARTFERM dry fermentation system. This system opens up Eggersmann's tried-and-trusted technology to totally new markets, in a whole new dimension – and a whole new price.

SMARTFERM benefits:

- Dry fermentation in the most reduced of spaces
- Low-cost maintenance and operation
- Highly efficient
- Minimal space requirements
- Effective power and heat recovery
- Semi-mobile

BIO-WASTE

Recover energy from bio-waste! SMARTFERM lets you produce effectively reusable energy from biodegradable waste.

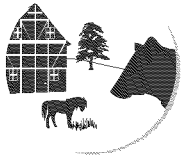
MAINTAIN GARDENS, PARKS AND CEMETERIES

Make effective use of your grass and plant-waste's energy potential! With SMARTFERM you produce biogas as an added benefit.

SMARTFERM
For those who think smart and act smart.

AGRICULTURAL OPERATIONS

The efficiently targeted way to deal with plant waste and animal dung! SMARTFERM lets you convert suitable organic waste into valuable biogas and nutrient-rich fertiliser.



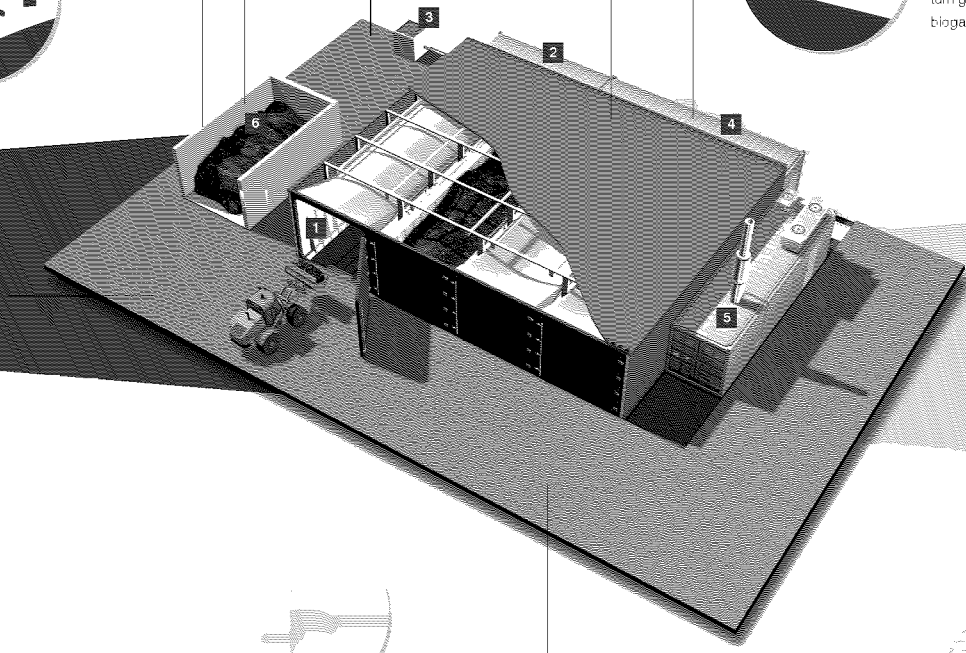
MAINTAIN GREEN SPACES AND GRASS VERGES

Cut your local taxpayer-funded costs! SMARTFERM efficiently converts grass and plant waste into regenerative energy.

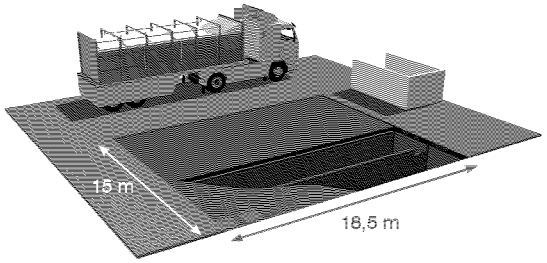
LANDSCAPE GARDENING FIRMS

Convert grass and plant waste into valuable fermented residue! SMARTFERM lets you turn grass and plant waste into biogas-fired heat and energy.

The new SMARTFERM system. Dry fermentation the **efficient, cost-effective and semi-mobile way!**



1. 4 Dry fermenter
2. Air management
3. Bio-filter
4. System container
5. Block-type thermal power station
6. Substrate container



SMARTFERM compact.

We can set up your SMARTFERM in just 20 working days on a surface measuring 18.5 x 15 metres. Eggersmann Plant Construction will also be pleased to provide the required onsite services.

The SMARTFERM system

SMARTFERM is the compact dry fermentation system for use with non-liquid substrates, such as.

- Garden waste/grass cuttings
- Organic agricultural waste
- Renewable raw materials
- Solid animal dung
- Bio-waste
- Quantity: up to approx. 4,000 Mg/a

The biogas produced can be used to generate electricity:

- 100-150 kW (electrical)

The biogas produced can be used to generate heat:

- 100-175 kW (thermal)

Other post-treatment of fermentation residue, such as biological drying, can be carried out without problem.

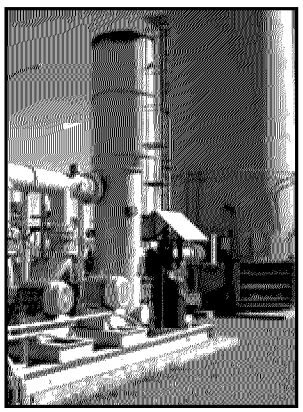
Appendix E
Cornerstone

Biogas Services

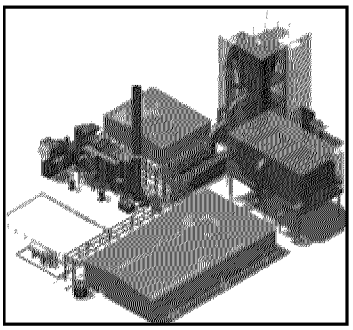
Experts in collection, control, and beneficial re-use

Knowledgeable staff develop cost effective plans

Cornerstone provides biogas services to large and small solid waste companies, municipalities, and other public solid waste authorities. Our staff members specialize in the assessment of the factors that affect biogas generation and recovery, and formulate the most effective plan for incorporating biogas collection and control systems (GCCS) into the facility.



Cornerstone has extensive experience in beneficial use of biogas. Although the primary biogas source has traditionally been landfill-generated, Cornerstone also provides services for the use of biogas from anaerobic waste digesters, including municipal and industrial wastewater and agricultural waste digesters. Most recently, we have expanded our services to include producing biogas-based fuel to power vehicles using compressed natural gas (CNG).



We use our understanding of the energy sector, the process of generating energy from biogas, and its associated air emissions, to assist project developers, equity investors, and financers quantify the value, risks, and upside potential of biogas projects.

What sets Cornerstone apart?

- ***Industry-leading engineering*** *– From designing the wellfield and gas collection header layout to flare sizing and development of beneficial-use facilities, our engineers provide a consistent, performance-based approach to biogas control and utilization.*
- ***Wide range of successful projects*** *– We have completed extraction and control systems at more than one hundred facilities throughout the United States, Canada and South America over the past four years.*
- ***Using advancements in technology*** *– Our staff reach for the next innovation, including using conditioned biogas to produce a blended vehicle fuel.*
- ***Client focus*** *– Listening to our clients' needs and objectives and thoroughly understanding their challenges is our goal and our promise.*
- ***Expert operations staff*** *– Field technicians are trained and qualified to make adjustments to our clients' systems to maximize operating efficiency and meet regulatory requirements.*
- ***Nationwide presence*** *– Offering perspective and knowledge of local business and regulatory issues, we also incorporate successful regional, national, and international solutions.*

CORNERSTONE
Environmental Group, LLC

For more information:

Michael Schumaci (East) - **(877) 294-9070**
Tom Bilgri (Central) - **(877) 633-5520**
Paul Stout (West) - **(877) 633-5520**

Building lifetime relationships with our clients and employees.

Biogas Services Provided

- **Biogas Engineering and Design**
  - *Biogas generation and recovery modeling*
  - *NSPS GCCS design plans*
  - *Facility master plans and multi-year phasing plans*
  - *Facilities design*
  - *Pipeline, compressor station, and electric power station design*
  - *Operation and financial evaluations*
  - *Construction related services*
- **Air Quality Services**
  - *Air quality monitoring and permitting*
  - *Air compliance and reporting*
  - *NSPS Tier I, II, and III evaluations and reporting*
  - *Surface emissions monitoring, and start-up, shutdown, and malfunction (SSM) plans*
  - *GHG emission reduction services*
- **Biogas Utilization/Landfill Gas-to-Energy**
  - *Beneficial use feasibility studies*
  - *Facility engineering*
  - *Construction management*
  - *Biogas generation and recovery modeling*
  - *Gas collection system efficiency assessments*
  - *Evaluations of biogas enhancement options*
  - *Project financial modeling*
- **Operations and Maintenance**
  - *O&M of biogas control equipment and systems*
  - *Adjustments to maximize operating efficiency and meet regulatory requirements*
  - *Small construction project capabilities*
  - *Training*
- **Landfill Closure and Post Closure**
  - *Biogas system permitting and funding*
  - *Regulatory liaison and agency approvals*
  - *Biogas systems permitting and funding*
  - *Regulatory liaison and agency approvals*
  - *Installation, operation and maintenance of biogas systems*
  - *Mitigation of subsurface and aerial biogas migration impacts*
- **Landfill Redevelopment**
  - *Remedial or control measures to mitigate potential gas migration issues*
  - *LFG generation modeling*
  - *Geotechnical evaluations*

Recent Cornerstone Experience

Cornerstone prides itself on establishing close and productive relationships with our clients. A few recent examples of biogas projects include:

Waste Management, Inc., Kirby Canyon Landfill (CA) – Permitting, design, and construction management of new LFG flare installation project, vertical wells, and expansion of the LFG well field to a new fill area.

Mesa County Solid Waste, Mesa County Landfill (CO) – Designed 1,200 standard cubic feet per minute (SCFM) utility flaring system and provided beneficial use feasibility study of several options for developing small scale beneficial use system.

Taylor Biomass Energy, LLC, Biomass Energy Facility (NY) – Permitting, engineering, and design services for proposed biomass processing, gasification and clean energy production facility.

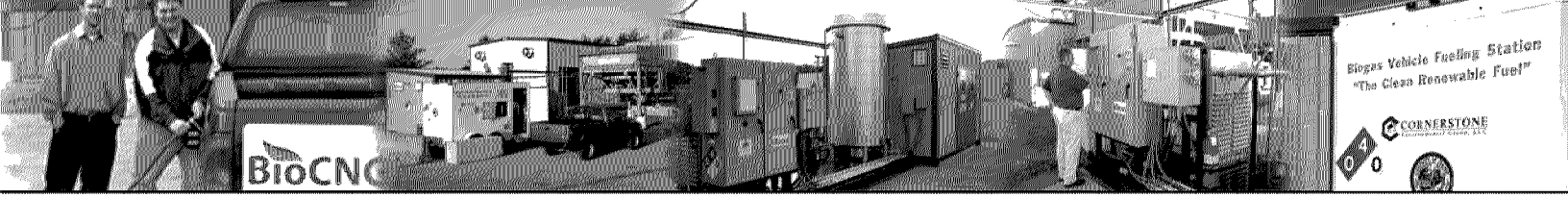
Republic Services Inc., Carbon Limestone Landfill (OH) – Designed an 18,000 SCFM enclosed flaring system and an 18,000 SCFM extraction and 1st stage compression system.

Republic Services Inc., Lorain Landfill (OH) – Designed a 12,000 SCFM enclosed flaring system.

Northeast Waste Systems, Mostoller Landfill (PA) – Design of 1,300 SCFM compression and transmission system, including 5-mile pipeline.

Brown County, Brown County East Landfill (WI) – Prepared an LFGTE plan design for a 2 MW electrical generation system, including a backup flare to take excess gas not used for electrical production.

Veolia Environmental Services, Emerald Park Landfill (WI) – Located, permitted and designed a compression station and 17-mile pipeline for direct LFG use at the Jones Island WWTP. This project, which will condition and compress up to 3,000 SCFM of LFG, is now under construction.



BioCNG™

Biogas to Compressed Natural Gas

Vehicle fuel for a green future

Cornerstone Environmental Group, LLC has developed a patent pending biogas conditioning system that economically produces biogas-based fuel "**BioCNG**" to power compressed natural gas (CNG) vehicles.
The **BioCNG** system is:

- Designed to use biogas from a variety of sources, including landfills, wastewater treatment digesters and agricultural and food waste digesters.
- Flexible enough to be used for small or large vehicle fleets.
- May be added to existing biogas energy production systems or serve as a standalone energy recovery system.
- In operation at the Rodefeld Landfill, in Dane County, Wisconsin
- Designed to produce fuel that meets SAE J1616 and engine manufacturers' specifications.

How does the BioCNG system work?

- Biogas is piped into the BioCNG conditioning unit where moisture (H_2O), hydrogen sulfide (H_2S),volatile organic compounds (VOCs) including siloxanes, and carbon dioxide (CO_2) are removed.
- After conditioning, the fuel is routed to a CNG fueling station where it is compressed for use in CNG vehicles.
- The conditioned biogas can be used directly in CNG vehicles or mixed with natural gas.

How much fuel is produced?

System Size	Biogas Inlet Flow (scfm)	Fuel Production (GGE/day)
BioCNG 50	50	200 - 275
BioCNG 100	100	375 - 550
BioCNG 200	200	775 - 1100

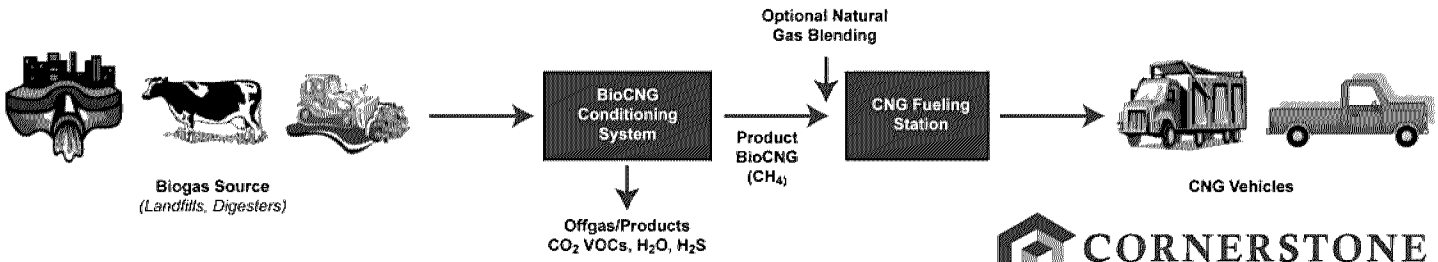
How will BioCNG be sold and delivered to customers?

Cornerstone offers several ways of delivering the BioCNG system, depending upon a customer's particular needs and preferences. Available options range from equipment sales to turnkey projects including financing options.

What are the project economics?

- BioCNG system fuel production costs are estimated to be approximately 25% of the price of conventional gasoline.
- Alternative fuel production tax credits/rebates up to $0.50/GGE may be available.
- A basic BioCNG 50 conditioning system is estimated to cost approximately $400,000, plus installation and fueling equipment.
- Actual prices will depend upon site conditions, the number of vehicles that require fueling, and if blending with natural gas is required.

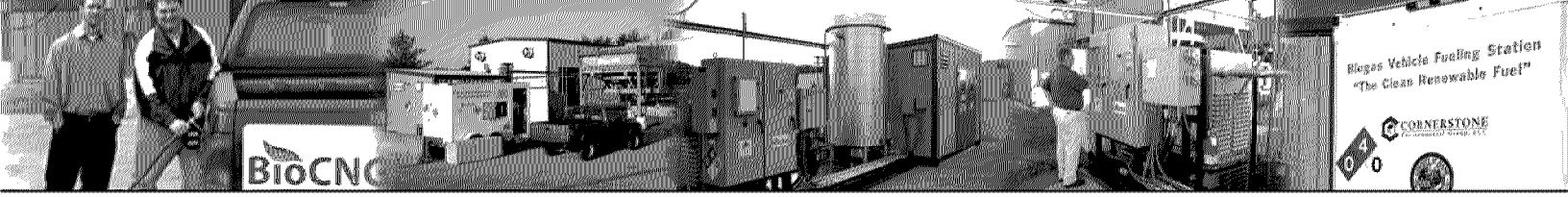
Interested parties are invited to contact us to view the system in operation and/or return the questionnaire on the back of this sheet.



BioCNG Vehicle Fueling System

CORNERSTONE
Environmental Group, LLC

October 2011



The next step if you are interested in a BioCNG:

Complete this questionnaire and return it to Cornerstone via email (see addresses below)so we can advise you further.

Questionnaire

Name: _____ Address: _____

Phone: _____ Email: _____

Facility Name: _____ Location: _____

What is the source of your biogas (animal waste digester, wastewater treatment plant digester, landfill, other)?

What is the composition of your biogas?

_____ %CH_4 _____ %CO_2 _____ %O_2 _____ %N_2 (balance gas)

Is any portion of your biogas currently being used beneficially (i.e.: electric generation, boiler fuel, other)?

If so, please describe.

What is the current flow rate (scfm) of your biogas that could be used in the BioCNG process?

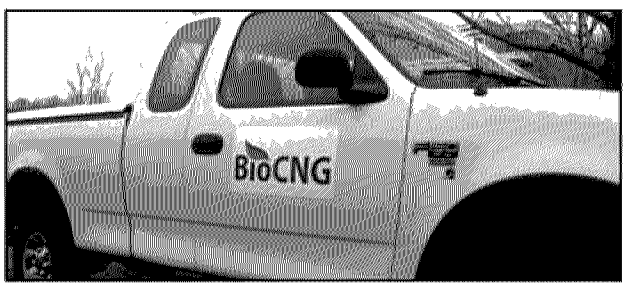
What is your daily usage of fuel? _____ gasoline, _____ diesel

Do you currently own CNG powered vehicles?

If so, what type and where do you fuel your vehicles?

Are any other CNG fleets in operation nearby your facility that might be interested in using your BioCNG?

Does your existing facility operate under an air permit? If so, please describe (i.e.: Title V, PSD, major source, other).



CORNERSTONE
Environmental Group, LLC

For more information, please contact:

Mike Michels - 845-695-0215
michael.michels@biocng.us

Mark Torresani - 630-633-5835
mark.torresani@biocng.us

Building lifetime relationships with our clients and employees.

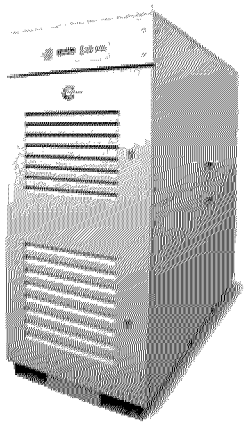
Appendix F
Capstone Microturbine

CR65 & CR65-ICHP MicroTurbine Renewable

Capstone

Robust power system achieves ultra-low emissions and reliable electrical/thermal generation from waste gas.

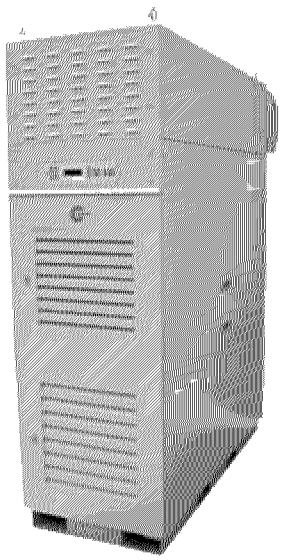
- Years of renewable experience
- Ultra-low emissions
- Operates on landfill or digester gas
- One moving part: Minimal maintenance and downtime
- Patented air bearing: No lubricating oil or coolant
- 5 and 9 year Factory Protection Plans available
- Remote monitoring and diagnostic capabilities
- Integrated utility synchronization and protection
- Small, modular design allows for easy, low-cost installation
- Reliable: Tens of millions of run hours and counting



CR65 MicroTurbine

Electrical Performance[1]

Electrical Power Output	65kW
Voltage	400–480 VAC
Electrical Service	3-Phase, 4 wire
Frequency	50/60 Hz
Maximum Output Current	100A, grid connect operation
Electrical Efficiency LHV	29%



CR65-ICHP MicroTurbine

Fuel/Engine Characteristics[1]

Landfill Gas HHV	13.0–22.3 MJ/m^3 (350–600 BTU/scf)
Digester Gas HHV	20.5–32.6 MJ/m^3 (550–875 BTU/scf)
H_2S Content	< 5,000 ppmv
Inlet Pressure	517–552 kPa gauge (75–80 psig)
Fuel Flow HHV	888 MJ/hr (842,000 BTU/hr)
Net Heat Rate LHV	12.4 MJ/KWh (11,800 BTU/kWh)

Exhaust Characteristics[1]

NOx Emissions @ 15% O_2[2]	< 9 ppmvd (18 mg/m^3)
NOx / Electrical Output[2]	0.16 g/bhp-hr (0.46 lb/MWhe)
Exhaust Gas Flow	0.49 kg/s (1.08 lbm/s)
Exhaust Gas Temperature	309°C (588°F)

Reliable power when and where you need it. Clean and simple.

C65-ICHP Heat Recovery[3]

Integrated Heat Recovery Module Type	Stainless Steel Core
Hot Water Heat Recovery	74kW (251,000 BTU/hr)
Total System Efficiency LHV	62%

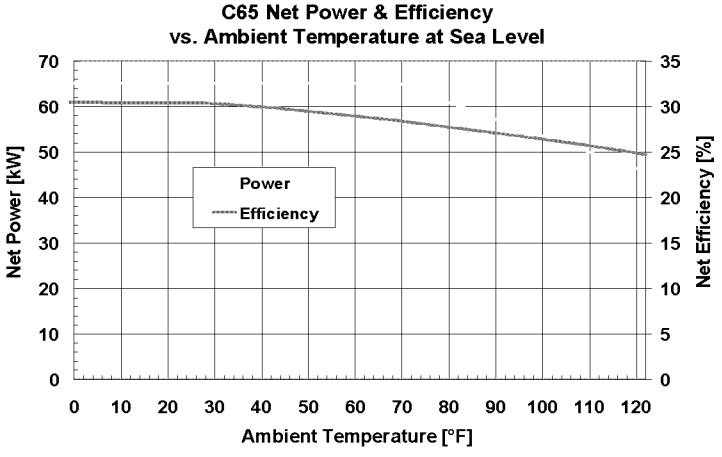
Dimensions & Weight[4]	CR65	CR65-ICHP
Width x Depth[5] x Height[6]	0.76 x 1.9 x 1.9 m (30 x 77 x 76 in)	0.76 x 2.2 x 2.4 m (30 x 87 x 93 in)
Weight	758 kg (1,671 lb)	1000 kg (2,200 lb)

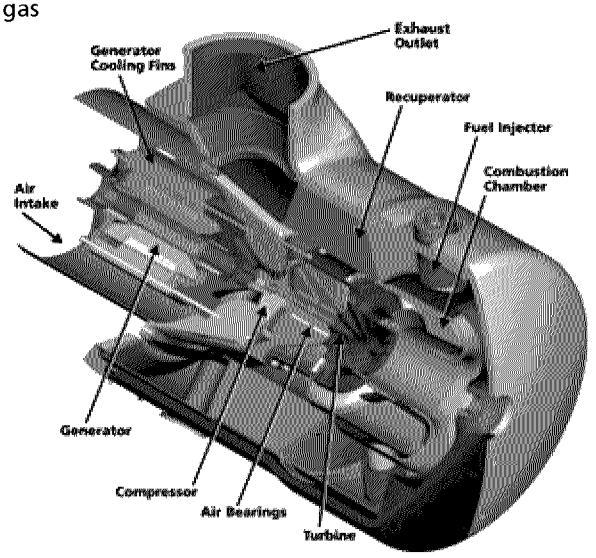
Minimum Clearance Requirements[7]	CR65	CR65-ICHP
Vertical Clearance	0.61 m (24 in)	0.61 m (24 in)
Horizontal Clearance		
Left & Right	0.76 m (30 in)	0.76 m (30 in)
Front	0.76 m (30 in)	0.76 m (30 in)
Rear	0.91 m (36 in)	0.76 m (30 in)

Sound Levels	CR65	CR65-ICHP
Acoustic Emissions at Full Load Power[8]		
Nominal at 10 m (33 ft)	70 dBA	65 dBA

Certifications

- Classified UL 2200 and UL 1741 for raw natural gas and biogas operation (UL file AU5040)
- Complies with IEEE 1547 and meets statewide utility interconnection requirements for California Rule 21 and the New York State Public Service Commission
- Models available with optional equipment for CE Marking
- Models available with optimal 2008 CARB certification for waste gas





(1) Nominal full power performance at ISO conditions: 59°F, 14.696 psia, 60% RH
(2) For surrogate landfill and digester gases. Please contact Capstone for additional details
(3) Heat recovery for water inlet temperature of 38°C (100°F) and flow rate of 2.5 l/s (40 GPM)
(4) Approximate dimensions and weights
(5) Depth includes 10 inch extension for the heat recovery module rain hood on ICHP versions
(6) Height dimensions are to the roof line. Exhaust outlet extends at least 7 inches above the roof line
(7) Clearance requirements may increase due to local code considerations
(8) The optional acoustic inlet hood kit can reduce acoustic emissions at the front of the MicroTurbine by up to 5 dBA
Specifications are not warranted and are subject to change without notice.

21211 Nordhoff Street • Chatsworth • CA • 91311 • 866.422.7786 • 818.734.5300 • www.capstoneturbine.com

DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT
PLANNING DIVISION
(650) 877-8535
FAX (650) 829-6639
E-MAIL WEB-ECD@SSF.NET

NOTICE OF ACTION

SOUTH SAN FRANCISCO PLANNING COMMISSION

TO: BLUE LINE TRANSFER, INC

APPLICATION: P12-0022 - Anaerobic Digestion Facility – Use Permit Modification, Design Review and Mitigated Negative Declaration to install an Anaerobic Digestion Facility at Blue line Transfer at 500 East Jamie Court in the Mixed Industrial (MI) Zone District in accordance with SSFMC Chapters 20.110, 20.300, 20.330, 20.460, 20.480 & 20.490.

Subprojects: UPM12-0002, ND12-0001 & DR12-0009

APPLICANT: BLUE LINE TRANSFER, INC

ADDRESS: 500 E JAMIE CT

The South San Francisco Planning Commission at a meeting held on **December 6, 2012** voted (5-0-0) to take the following action on the above applications:

☑ APPROVED *Based on Resolution No. 2727-2012 and Resolution No. 2828-2012

☐ DENIED * Based on the Findings of Denial

☐ CONTINUED *_____
(Specific Date or Off Calendar)

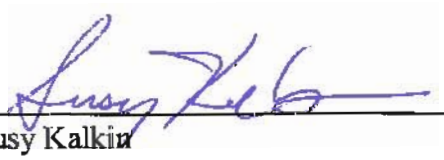
☐ FORWARDED Recommendation to APPROVE/DENY
Item Tentatively scheduled for_____ City Council Meeting

*APPEAL PROCEDURE: Appeal to the City Council of the above Commission decision may be filed in writing with the City Clerk no later than **December 21, 2012.** Appeals of Zoning Cases require a filing fee according to the provisions of the City's Master Fee Schedule. This fee shall be filed with the Planning Division no later than the above date. An appeal is not valid without the required fee. **Please be advised that no building permit can be issued until the appeal period is over.**

Please refer to the Conditions of Project Approval set forth herein. If you believe that these Conditions impose any fees, dedications, reservation or other exactions under the California Government Code Section 66000, you are hereby notified that these Conditions constitute written notice of a statement of the amount of such fees, and/or a description of the dedications, reservations, and other exactions. You are hereby further notified that the 90-day approval period in which you may protest such fees, dedications, reservations, and other exactions, pursuant to Government Code Section 66020(a), has begun. If you fail to file a protest

within this 90-day period complying with all of the requirements of Section 66020, you will be legally barred from later challenging such exactions.

I certify that the foregoing is an accurate representation of the action of the Planning Commission in consideration of this application.

BY:  DATE: December 10, 2012

Susy Kalkin
Chief Planner
City of South San Francisco

cc: CRW Record

RESOLUTION NO. 2727-2012

PLANNING COMMISSION, CITY OF SOUTH SAN FRANCISCO STATE OF CALIFORNIA

A RESOLUTION MAKING FINDINGS AND ADOPTING THE INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION AND A MITIGATION MONITORING AND REPORTING PROGRAM FOR AN ANAEROBIC DIGESTER FACILITY PROJECT AT 500 EAST JAMIE COURT

WHEREAS, Blue Line Transfer, Inc. ("Applicant") has submitted an application to install an Anaerobic Digestion Facility at Blue Line Transfer at 500 East Jamie Court ("Project"); and,

WHEREAS, approval of Applicant's proposal requires granting a Use Permit and is considered a "Project," as that term is defined under the California Environmental Quality Act, Public Resources Code Sections 21000, et seq. ("CEQA"); and

WHEREAS, in accordance with CEQA, an initial study was performed, the result of which was preparation and circulation of a mitigated negative declaration ("IS/MND") analyzing the proposed Project and concluding that approval of the Project could not have a significant effect on the environment because the impacts of the Project could all be mitigated to levels below established CEQA thresholds of significance with the adoption of mitigation measures and enforcement of such measures; and,

WHEREAS, the IS/MND was circulated for a 30-day public review period, beginning on September 6, 2012, during which time members of the public were invited to comment on the environmental analysis and conclusions for the proposed Project; and

WHEREAS, the Planning Commission has reviewed and carefully considered the information in the IS/MND, including all comment letters submitted, and makes the findings contained in this Resolution, and adopts the IS/MND, as an objective and accurate document that reflects the independent judgment and analysis of the City in the discussion of the Project's environmental impacts.

NOW, THEREFORE, BE IT RESOLVED that based on the entirety of the record before it, which includes without limitation, the California Environmental Quality Act, Public Resources Code §§ 21000, et seq. ("CEQA") and the CEQA Guidelines, 14 California Code of Regulations § 15000, et seq.; the South San Francisco 1999 General Plan and General Plan Environmental Impact Report, including the 2001 updates to the General Plan and 2001 Supplemental Environmental Impact Report; the South San Francisco Municipal Code; the Initial Study and Mitigated Negative Declaration, prepared for the Project, including all written comments received; all reports, minutes, and public testimony submitted as part of the Design Review Board meetings held on July 26, 2012, respectively; all reports, minutes, and public testimony submitted as part of the Planning Commission's duly noticed public hearing on December 6, 2012; and any

other evidence (within the meaning of Public Resources Code §21080(e) and §21082.2), the Planning Commission of the City of South San Francisco hereby finds as follows:

1. The foregoing recitals are true and correct and made a part of this Resolution.

2. The IS/MND, the Response to Comments, including comment letters received, and the Mitigation Monitoring and Reporting Program for the Project, attached as Exhibits A, B and C to this Resolution, are incorporated by reference as part of this Resolution, as if each were set forth fully herein.

3. The documents and other material constituting the record for these proceedings are located at the Planning Division for the City of South San Francisco, 315 Maple Avenue, South San Francisco, CA 94080, and in the custody of Chief Planner, Susy Kalkin.

4. The proposed Project is consistent with the City of South San Francisco General Plan because the land use, development standards, densities and intensities, buildings and structures proposed are compatible with the goals, policies, and land use designations established in the General Plan (see Gov't Code, § 65860), and none of the land uses, development standards, densities and intensities, buildings and structures will operate to conflict with or impede achievement of the any of the goals, policies, or land use designations established in the General Plan.

5. In accordance with CEQA, the Planning Commission has considered the Initial Study and Mitigated Negative Declaration for the Project, including all comments received on the IS/MND, and based on the entirety of the record, as described above, the Planning Commission, exercising its independent judgment and analysis, makes the following findings regarding the environmental analysis of the Project:

a. In October 1999, the City Council certified an Environmental Impact Report for the General Plan; in 2001 the City Council certified a Supplemental Environmental Impact Report for updates to the General Plan. CEQA allows for streamlined approval of actions that are consistent with adopted General Plans for which an EIR was certified. (Pub. Resources Code, § 21083; CEQA Guidelines, §§ 15152, 15183.) An initial study was prepared for the proposed Project and a mitigated negative declaration analyzed the potential for impacts that were peculiar to the Project or not analyzed as significant impacts in the General Plan EIR, or Supplemental EIR. The IS/MND, which expressly considers the City's previous EIRs, concludes that approval of the Project will not result in any significant environmental impacts.

b. Design features of the Project, as well as the mitigation measures proposed in the IS/MND, will operate to ensure the impacts of the proposed Project will not exceed established CEQA thresholds of significance. Therefore, and as further documented in the IS/MND for the Project, additional mitigation measures beyond those established in the IS/MND are not required for the Project.

c. For the reasons stated in this Resolution, the Planning Commission finds that there is no substantial evidence in the record supporting a fair argument that approval of the Project will result in a significant environmental effect.

BE IT FURTHER RESOLVED that the Planning Commission of the City of South San Francisco hereby makes the findings contained in this Resolution, and adopts the IS/MND for the Project (ND12-0001).

BE IT FURTHER RESOLVED that this Resolution shall become effective immediately upon its passage and adoption.

* * * * * *

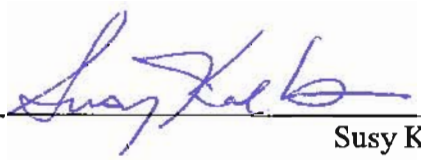
I hereby certify that the foregoing resolution was adopted by the Planning Commission of the City of South San Francisco at the regular meeting held on the 6th day of December, 2012 by the following vote:

AYES: Commissioner Gupta, Commissioner Martin, Vice-Chairperson Ochsenhirt, Commissioner Prouty, Chairperson Zemke

NOES: None

ABSTAIN: None

ABSENT: Commissioner Giusti, Commissioner Sim

Attest: 

Susy Kalkin
Secretary to the Planning Commission

1629640.1

Exhibit A

Initial Study and Mitigated Negative Declaration

Exhibit B

Response to Comments

ESA

2600 Capitol Avenue
Suite 200
Sacramento, CA 95816
916.564.4500 phone
916.564.4501 fax

www.esassoc.com

Memorandum

Date November 8, 2012

To Billy Gross, AICP - City of South San Francisco Planning Division

From Matthew Morales - ESA

Subject Blue Line Biogenic CNG Facility – Response to Comments on IS/MND

INTRODUCTION

This report addresses comments received regarding the Blue Line Biogenic CNG Facility Initial Study/Mitigated Negative Declaration (SCH#: 2012092007) from the Governor's Office of Planning and Research, the California Department of Resources Recycling and Recovery (CalRecycle), and the San Francisco International Airport (SFO). These comment letters are attached to this report and were formatted to identify individual comments to be addressed.

FORMAT OF CHANGES

The revisions or updates to the IS/MND are marked to help the reader identify specific portions of the text that have been modified. As shown in the example below, new text is underlined and deleted text has strikethrough marking.

> This sentence is underlined as an example of new text. ~~This sentence is striken as an example of a sentence or word that has been removed.~~

LETTER A: GOVERNOR'S OFFICE OF PLANNING AND RESEARCH

A1: Comment noted that the City of South San Francisco has complied with the State Clearinghouse review requirements for the Draft IS/MND pursuant to CEQA.

LETTER B: CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

B1: Commenter introduces their letter and requests notification of any significant differences between CalRecycle's project description and the project as understood by the Lead Agency. The commenter

summarizes the project description in B2 (below), which matches the Lead Agency understanding as presented in the IS/MND. There are no significant differences for which to notify CalRecycle.

B2: The commenter summarizes the project description. Comment noted.

B3: Notably, the material leaving the facility would not be considered a "waste material" as mentioned in the comment letter. The digestate from the anaerobic composting chambers would be transferred into an in-vessel compost chamber (IVC) as shown on the drawings, for a period of four to five days for ammonia removal and odor control. The material would go through the required pathogen reduction process to qualify as a compost material, and not a "waste material". This compost material will be tested following Title 14 Section 17868.1 regulations, and could go to a variety of markets. An operator who composts green material, food material, or mixed solid waste shall take and analyze one composite sample for every 5,000 cubic-yards of compost produced.

Initially, the compost material will be hauled to the Z-Best Compost Facility in Gilroy for curing and blending in order to produce quality stable compost for a value market. The inbound material would qualify as "compost material" and would be cured at the Z-Best Compost Facility and be placed in windrows as a "green material" for tonnage accounting, for curing and blending. There would be no need for any changes at the Z-Best Compost Facility. All of the material will be put through a compost process to ensure pathogen reduction at Blue Line, and will be tested following Title 14 regulations. At Z-Best Compost, the compost may be cured, or blended, to make quality compost. Should the material be blended with green material for further composting, the blended material would be placed through the compost process to ensure pathogen reduction and would be tested at Z-Best pursuant to Title 14 regulations.

After one year of testing, and with the proven performance of the IVC, the compost material may go to a variety of markets. To clarify this distinction, the following revision should be made to the IS/MND (page 4), number 8 of the Process Description:

> "8. The ~~digestate~~compost material would then be transported to a permitted compost facility for curing, or other viable markets, as allowed by regulation and approved by the Local Enforcement Agency (LEA) ~~the Z-Best Composting Facility in Gilroy~~."

B4: With regard to feedstocks, the Project will accept 10,000 tons per year of approximately 50% food waste and 50% green waste. The food waste will consist of source separated pre-consumer food wastes from grocery stores, post-consumer food wastes from restaurants and institutions, and food processing wastes. Residential waste will consist of co-collected residential green waste with residential food waste (typically with up to 10% residential food waste). The selected dry fermentation technology does not require upfront grinding, sorting, and screening systems. The feedstock will be placed in the aeration vessel and stacked in bulk without further processing. The Project is designed to allow for the use of front end loaders for material handling, including loading and unloading, mixing and transporting.

Commercial self-haul yard waste will not be accepted at this operation (too bulky to process at the Project) and would continue to go to the current Blue Line Material Recovery Facility green waste processing operations. For food waste, efforts will be made by the collector and source generator to limit contamination of the feedstocks through implementation of a Commercial Food Waste Program for Restaurants, which would include analysis, education, management, and enforcement procedures. Even with these

contamination minimization efforts, it is likely that food waste contamination (such as silverware, corks, plastics, and glass) levels could average 5% with cases up to 10%. Since dry fermentation does not require grinding or pre-processing and is a batch system with bulk material handling, contamination does not need to be removed for physical or biological reasons. Any contamination can be screened out as part of the finished compost process at Z-Best, where contamination is physical inert material that does not compromise compost quality.

B5: The following discussion provides additional information pertaining to air quality and odor considerations requested by the commenter. The following process controls will be used to reduce potential odors to less than significant during the pre-digestion, digestion, and in-vessel composting stages:

- The Aeration Vessel, where the feedstock will be received, will be enclosed with a roll-up door. When the doors are opened, the building will be placed on a negative air flow, which will draw any potential odors in, and will be exhausted through a biofilter.

- The eight anaerobic digesters where the feedstock will be digested will be enclosed with air tight doors. When the doors are opened to move feedstock, the digester will be placed on a negative air flow, which will draw any potential odors in, and will be exhausted through a biofilter.

- The two in vessel compost chambers where the digestate will be composted will be enclosed with air tight doors. When the doors are opened to move feedstock, the chambers will be placed on a negative air flow, which will draw any potential odors in, and will be exhausted through a biofilter.

As described above, many of the emission generating activities would occur in enclosed buildings subject to negative aeration pressure and designed to capture all emissions generated within the enclosure and to draw excess atmospheric air into the enclosure to ensure no emissions escape. The ventilation system would then discharge the air to a biofilter for cleaning prior to being emitted to the atmosphere. Biofiltration is a well known treatment technology that has consistently documented destruction efficiencies of over 90% for volatile organic compounds (VOCs). A pilot-scale experiment conducted at California State University, Fresno, demonstrated 99% destruction efficiency for VOCs. Tests conducted at the Inland Empire Regional Compost Facility resulted in a measured VOC destruction efficiency of 94%. The South Coast Air Quality Management District (SCAQMD) published a list of operational biofilters and estimated destruction efficiencies (http://www.aqmd.gov/rules/doc/r1133/app_c_biofilter.pdf). Additionally, very high destruction efficiencies for methane and nitrous oxide have been demonstrated. A pilot-scale experiment done at California State University, Fresno, demonstrated 99.7% destruction efficiency for methane and 97.1% for nitrous oxide. Tests conducted at the University of Texas, Arlington, demonstrated 100% removal efficiency for hydrogen sulfide through a biofilter.

The proposed biofilter for the Project has been sized to accommodate the air-flow from the aeration vessel, the eight anaerobic digesters, and the two in-vessel compost chambers. The size is 10 feet wide, 40 feet long and 4 feet tall. The biofilter organic media material will be a blend of wood chips and compost; moisture will be maintained to an optimum level to keep the microbes healthy in the filter media. This is a model biofilter used in the commercially demonstrated German operations and is typical of biofilters tested in the above-noted studies. The biofilter media may need to be replaced every 12 to 18 months, and consists of readily available material from the Z-Best Compost Facility, that can be back-hauled to the Project. The filter media consists of 1,600 cubic yards of material, or about 8 transfer trailer loads of filter media, that can be received

and replaced in less than 24-hours. During the periods of biofilter maintenance, the doors of the eight anaerobic digesters and the two in-vessel compost chambers will remain closed.

As noted in the Odor Impact Minimization Plan (OIMP) for the Project, which has already been prepared by the applicant and submitted to the City of South San Francisco and the LEA, in the event that significant odors are detected, the applicant shall present the LEA with additional measures to minimize the likelihood of future odor detection. These measures may include restricting operations of moving bucket loads of material to off-peak hours during the evening, to avoid potential sensitive receptors throughout the day. Also, although prevailing wind conditions for the site are primarily westerly and generally convey any odors toward the San Francisco Bay, a wind-sock could be placed to determine wind direction and only move materials during periods of wind that blow away from potential sensitive receptors. If the control system fails or is ineffective, a misting system may be placed on the canopy to neutralize odors, or the canopy may be further enclosed to ensure a negative pressure during the transfer of materials.

B6: With regard to vectors, the buildings are fully enclosed and will stay enclosed during the storage, digestion and composting process. The buildings are only open during the transfer of material between the buildings. After the transfer of materials, a street sweeper will collect any material that may have fallen from the loader that may become an attractive to nuisance vectors.

B7: The tonnage is 10,000 tons per year, or about 40 tons per day, Monday through Friday, or about 5 packer truck loads. During peak season and on Monday, the peak flow could increase to up to 10 trucks, or 80 tons per day. The amount of tonnage is part of the current Solid Waste Facility Permit of 2,000 tons per day. An increase in tonnage is not being requested. Each truck will be weighed at the scale house, and will go directly to the anaerobic digestion facility (rather than to the MRF) to depart the material in the aeration vessel.

B8: The applicant and the City of South San Francisco discussed the permitting of anaerobic digestion facilities in California with Greg Schirle of the San Mateo County LEA, on November 1, 2012, and had general agreement on the Project permitting pathway. The Project will require that the current Solid Waste Facility Permit (SWFP) for the Blue Line Material Recovery Facility and Transfer Station will need to be revised within the current 5-Year Permit Review that is underway. The permitting document will incorporate the AD facility into the current Transfer/Processing Report (TPR), and the stand-alone AD facility will be within the SWFP Revision boundaries of the current facility, and will have a standalone Report of Facility as an appendix to the current TPR.

CalRecycle certified the *Program Environmental Impact Report (EIR) for Anaerobic Digestion Facilities* on June 22, 2011. This Program EIR assesses the environmental effects that may result from the development of anaerobic digestion facilities in California. The results of the Program EIR will inform future policy considerations related to anaerobic digestion facilities and provide background information on technologies, potential impacts, and mitigation measures. The Program EIR provided the following guidance on permitting AD facilities:

> "The proposed AD facilities shall be regulated under CalRecycle's existing composting or transfer/processing regulations, as contained in the CCR, Title 14, Chapter 3, which sets minimum standards for solid waste handling and disposal. The determination of facility type under the existing regulations would be based on the nature of the feedstock and the temperature of onsite processes. If

the feedstock reach a temperature of at least 50 degrees Celsius/122 degrees Fahrenheit (50C/122F) on site, then the facility shall be regulated as a compostable material handling facility under the Title 14 composting requirements (sections 17850-17870). If the feedstock does not reach the temperature of 50C/122F on site, then the facility shall be regulated as a transfer/processing facility. Transfer and processing operations and facilities are regulated under Chapter 3, Article 6.0 of Title 14 (sections 17400-17405.0). Both sets of regulations include exemptions and exclusions. This permitting discussion does not address potential on-site disposal of solid byproducts from AD facilities."

The receiving and digestate management portions of this operation will be mesophilic, where the transfer/processing regulations would apply. The dry fermentation anaerobic digestion process will be thermophilic, and the in-vessel composting chamber will also be mesophilic. With this hybrid operation, permitting will follow a transfer/processing regulations format, with aspects of the compost regulations in the Report of Composting Site Information format being referenced accordingly.

Each operator of a Large Volume Transfer/Processing Facility that is required to obtain a full SWFP, as set forth in Title 27, Division 2, Subdivision 1, Chapter 4, Subchapter 3, Articles 2.0 - 3.2, (commencing with section 21570) shall, at the time of application, file a TPR with the LEA as required in Title 14, Section 18221.6. The TPR format allows CalRecycle and the LEA to clearly review all aspects of the California Code of Regulations - Title 14, and are fully addressed in conjunction with the issuance of a SWFP and its corresponding terms and conditions.

Each operator of a compostable material handling facility that is required to obtain a Compostable Materials Handling Facility Permit, as specified in Title 27, California Code of Regulations, Division 2, Subdivision 1, Chapter 4, Subchapter 1 and Subchapter 3, Articles 1, 2, 3, and 3.1 (commencing with section 21450), shall, at the time of application, file a Report of Composting Site Information with the LEA as required by Title 14, Section 17863.

B9: The commenter notes that responses to CalRecycle comments are not required by statute or regulation, but will increase CalRecycle staff's understanding of the Project and facilitate the review of future permits submitted for concurrence by CalRecycle. The above responses have been developed accordingly. CalRecycle also requests copies of any subsequent environmental documents including the Report of Facility Information, copies of public notices, and any Notices of Determination for this Project. Copies of these items will be provided, where applicable.

LETTER C: SAN FRANCISCO INTERNATIONAL AIRPORT

C1: The commenter summarizes the Project description and that the project would be subject to the policies in the current Comprehensive Land Use Plan (CLUP) and the new Airport Land Use Compatibility Plan (ALUCP) for SFO. As described by the commenter, the Project would not pose an airport land use compatibility issue with regard to noise or safety.

C2: The commenter suggested that the Federal Aviation Administration (FAA) Form 7460-1, "Notice of Proposed Construction or Alteration" be filed with the FAA and a Determination of No Hazard be obtained prior to project approval. The height of the FAA's notification surface (defined in 14 CFR Part 77, Subpart B) at the project site will be approximately 62 feet above ground level (AGL) based on ESA's independent analysis and our review of the recently adopted ALUCP for SFO (October 2012), specifically Exhibit IV-10. The

tallest structure associated with the proposed project, the anaerobic digester building, will have a maximum height of 30 feet AGL. Since the roof of the tallest structure associated with the proposed project will be lower than the FAA's notification surface, it is unnecessary to file Form 7460-1 with the FAA. This finding, which is described in the IS/MND, is consistent with Policy AP-1, Subpart AP-1.2 in the ALUCP.

Notably, the IS/MND listed the incorrect AGL for the FAA Notification surface. The following revision should be made to the IS/MND (page 47):

> "The height of the FAA's Notification surface at the proposed project site is approximately 6280 ~~80~~ feet above ground level (AGL) given the distance between the site and runways at San Francisco International Airport and the ground elevation relative to mean sea level at both locations. The anaerobic digester building is expected to have a height of approximately 30 feet AGL."

This correction does not change the conclusions included in the IS/MND and summarized above.

C3: The commenter is correct in that the Project facilities would be covered and would not attract large concentrations of birds that might pose a hazard to air navigation.

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

October 9, 2012

Billy Gross
City of South San Francisco
315 Maple Avenue
South San Francisco, CA 94080

Subject: South San Francisco Anaerobic Digestion Facility with CNG Production
SCH#: 2012092007

Dear Billy Gross:

A1

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on October 5, 2012, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2012092007
Project Title South San Francisco Anaerobic Digestion Facility with CNG Production
Lead Agency South San Francisco, City of

Type MND Mitigated Negative Declaration

Description Blue Line Transfer, Inc. (Blue Line) is proposing to develop an Anaerobic Digestion (AD) Facility that would be capable of processing 10,000 tons per year (tpy) of food waste and green waste into biogas (gaseous product generated by the degradation of organic matter under anaerobic conditions) that would be cleaned and converted into biogenic compressed natural gas (CNG). The project is expected to produce 56,000 diesel-equivalent gallons (dge) per year of CNG, enough fuel for four to five CNG-fueled collection vehicles. The project would be located at the Blue Line Materials Recovery Facility in the City of South San Francisco. The South San Francisco Scavenger Company, Inc. CNG collection vehicle fleet is also located at the Blue Line MRF which would be fueled by the CNG produced by the project.

Lead Agency Contact

Name Billy Gross
Agency City of South San Francisco
Phone (650) 877-8535 **Fax**
email
Address 315 Maple Avenue
City South San Francisco **State** CA **Zip** 94080

Project Location

County San Mateo
City South San Francisco
Region
Lat / Long 37° 38' 58" N / 122° 23' .17" W
Cross Streets East Jamie Court and Haskins Way
Parcel No. 015-102-350
Township **Range** **Section** **Base**

Proximity to:

Highways Hwy 101
Airports San Francisco International
Railways Caltrain
Waterways San Francisco Bay
Schools
Land Use Present Use: Parking Lot. Mixed Industrial

Project Issues Aesthetic/Visual; Air Quality; Biological Resources; Geologic/Seismic; Noise; Solid Waste; Other Issues

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Conservation; Department of Fish and Game, Region 3; Department of Parks and Recreation; San Francisco Bay Conservation and Development Commission; Resources, Recycling and Recovery; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 4; Regional Water Quality Control Board, Region 2; Native American Heritage Commission; Public Utilities Commission; State Lands Commission

Date Received 09/06/2012 **Start of Review** 09/06/2012 **End of Review** 10/05/2012

California Environmental Protection Agency | Edmund G. Brown, Jr., Governor

CalRecycle

DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

1001 I STREET, SACRAMENTO, CALIFORNIA 95814 • WWW.CALRECYCLE.CA.GOV • (916) 322-4027
P.O. BOX 4025, SACRAMENTO, CALIFORNIA 95812

10/5/12 Clear

RECEIVED
OCT 05 2012
STATE CLEARING HOUSE

October 5, 2012

Billy Gross
Planning Division
City of South San Francisco
315 Maple Avenue
South San Francisco, CA 94080

Subject: SCH No 2012092007 - Initial Study/Mitigated Negative Declaration for the Anaerobic Digestion (AD) Facility at the Blue Line Transfer Station in the City of South San Francisco, SWIS No. 41-AA-0185, San Mateo County

Dear Mr. Gross:

Thank you for allowing the Department of Resources Recycling and Recovery (CalRecycle) staff to provide comments for this proposed project and for your agency's consideration of these comments as part of the California Environmental Quality Act (CEQA) process. B1

CalRecycle staff has reviewed the environmental document cited above and offer the following project description, analysis, and recommendations for the proposed project based on CalRecycle staff's understanding of the project. If CalRecycle's project description varies substantially from the project as understood by the Lead Agency, CalRecycle staff requests notification of any significant differences before adoption of this Initial Study/Mitigated Negative Declaration and approval of the project. Substantial differences in the project description could qualify as "significant new information" about the project that would require recirculation of the document before adoption pursuant to CEQA Section 15073.5 or possibly the preparation of a new environmental document.

Project Description

The City of South San Francisco, Planning Division, acting as Lead Agency, has prepared and circulated an Initial Study/Mitigated Negative Declaration in order to comply with the CEQA and to provide information to, and solicit consultation with, Responsible Agencies in the approval of the proposed project. B2

The proposed project located at 500 E. Jamie Court, South San Francisco. The proposal would allow a dry fermentation (digester) to be constructed within the property of an existing transfer station which is located on the western edge of San Francisco Bay in a business park within a mixed industrial zone. The project would take food waste and green waste, and produce biogas that will be chemically scrubbed for the creation of compressed gas and will be used by the

collection trucks for South San Francisco Scavenger. Waste gas will be used in turbines that power the facility and provide heat for the digestion process. Approximately 35 tons per day of food waste and green waste will be delivered by trucks. The residual from the digestion process will be removed from the digesters and placed in an in-vessel system (for four to five days) for ammonia gas removal. The gases will go through an acidifier and a biofilter to further reduce ammonia and VOCs. The material will then be taken to Z-Best Compost Facility in Santa Clara County. B2 cont.

Department Staff's Comments

Please provide a description of how the waste material will be handled at the Z-Best Compost Facility. Will there need to be changes to the design and operations of the compost facility to reduce any potential impacts that may result in handling this new compost feedstock? Will all of the material be put through a compost process that will ensure pathogen reduction? Will the end product be sampled pursuant to Title 14 Section 17868.1 prior to be removed from the Z-Best site? B3

Feedstock

Please provide a more detailed description of the feedstocks as well as their sources. Does the food waste consist of pre-consumer waste, post-consumer, from restaurants, groceries, residents? Waste materials taken out of the waste stream at different stages, or from different sources, can have more contaminants (non-digestible fraction) than at other stages or sources. How are the waste materials handled before entering the dry fermentation phase of the process? Will the waste require grinding or shredded? How will contaminates be removed? B4

Air Quality/Odor

What specific mitigations will be used to reduce potential odors to less than significant during the pre-digestion phase? It is not appropriate to defer this discussion to the development of an odor impact minization plan (OIMP); this information should be discussed in the environmental review. What are the operational considerations or design aspects of the facility that be required to minimize and fully mitigate odor impacts? What is the specific sizing of the biofilter, has there been a demonstration that the chosen size and type of biofilter will be adequate? What controls will be in place to address odors during maintenance or replacement of the biofilter matrix. What contingencies will be in place to address odors if the control system fails? B5

CalRecycle developed a list of potential mitigation measures in our program environmental impact report (PEIR) for anaerobic digestion facilities. We have enclosed the section (Table 1-1) from the PEIR to assist the lead agency in determining appropriate odor mitigations for the project.

Vectors

Food waste often attracts vectors including rodents and birds. What are the operational considerations to eliminate the attraction of vectors to the food waste? B6

Tonnage

The project description states that up to 10,000 tons/year of green and food waste will be processed by the project. What is the total daily design through put for the project? How will B7

the delivery of waste materials specific to the project be separated and delivered to the transfer station? B7 cont.

Permits

The Local Enforcement Agency of this proposed project is the County of San Mateo, Health Services Department, Environmental Health Services Division (Greg Schirle – 650-372-6297 – mailto:gschirle@smcgov.org). Please contact the Local Enforcement Agency to discuss permit requirements for the project and the transfer processing facility. B8

Conclusions

CalRecycle staff thank the Lead Agency for the opportunity to review and comment on this environmental document and hopes that this comment letter will be useful to the Lead Agency in carrying out their responsibilities in the CEQA process. B9

While responses to our comments are not required by statute or regulation, by responding, it will increase CalRecycle staff's understanding of your project and facilitate the review of future permits submitted for concurrence by CalRecycle.

CalRecycle staff requests copies of any subsequent environmental documents including the Report of Facility Information, copies of public notices and any Notices of Determination for this project. Refer to 14CCR, Section 15075(d) that states:

> If the project requires a discretionary approval from any state agency, the local lead agency shall also, within 5 working days of this approval, file a copy of the notice of determination with the Office of Planning and Research [State Clearinghouse].
>
> If the document is adopted during a public hearing, CalRecycle staff requests ten days advance notice of this hearing. If the document is adopted without a public hearing, CalRecycle staff requests ten days advance notification of the date of the adoption and project approval by the decision-making body.

If you have any questions regarding these comments, please contact me at 916.341.6344 or by e-mail at reinhard.hohlwein@calrecycle.ca.gov.

Sincerely,

for/

Reinhard Hohlwein, Waste Management Specialist
Permitting and Assistance Branch
Waste Permitting, Compliance, and Mitigation Division
CalRecycle

Enclosure

cc: Ken Decio, CalRecycle
Dave Otsubo, CalRecycle

Greg Schirle, LEA
County of San Mateo
gschirle@smcgov.org

Letter C

San Francisco International Airport

September 14, 2012

SEP 18 2012

Mr. Billy Gross, AICP
Associate Planner
City of South San Francisco
315 Maple Avenue
South San Francisco, California 94080

Subject: ***500 East Jamie Court, Notice of Intent to Adopt a Mitigated Negative Declaration – City of South San Francisco***

Dear Mr. Gross:

Thank you for notifying San Francisco International Airport (SFO or the Airport) of the Notice of Intent to Adopt a Mitigated Negative Declaration for the Anaerobic Digestion Facility (the Project) at 500 East Jamie Court in South San Francisco. We appreciate this opportunity to coordinate with the City of South San Francisco (the City) in considering and evaluating potential land use compatibility issues that this and similar projects may pose. C1

As described in the Initial Study, the proposed development consists of an aeration chamber, biogas storage bladder, in-vessel composting chambers and associated improvements. The Project will be constructed on the existing Blue Line Material Recovery Facility site. The aeration chamber and the domed biogas storage bladder will be approximately 31 feet above ground level.

Due to the Project's proximity to the Airport, it is subject to the policies of the Comprehensive Airport Land Use Plan (CLUP) for SFO. The CLUP addresses issues related to compatibility between airport operations and surrounding land use development, considering noise impacts, safety of persons on the ground and in flight, height restrictions/airspace protection, and overflight notification. Land use development within the Airport Influence Area is governed by the CLUP adopted by the City/County Association of Governments of San Mateo County (C/CAG) in 1996, amended 1998. C/CAG is in the process of updating the SFO CLUP, and the new Airport Land Use Compatibility Plan (ALUCP) for SFO is anticipated to be completed by October 2012 Future development should be consistent with ALUCP policies with regard to height, noise, and safety compatibility. This is supported by South San Francisco General Plan Policy 2-I-22, which states: "Require that all future development conforms with the relevant height, aircraft noise, and safety policies and compatibility criteria contained in the most recently adopted version of the San Mateo County Comprehensive Airport Land Use Plan for the environs of San Francisco International Airport."

Based on the updated data and policies of the draft ALUCP, the Project is situated outside of the Airport's CNEL 65 dB noise contour. Additionally, the Project is not situated within a runway end safety zone. Therefore, based on the information provided, the proposed Project would not pose an airport land use compatibility issue with regard to noise or safety.

Post Office Box 8097 San Francisco, California 94128 Tel 650.821.5000 Fax 650.821.5005 www.flysfo.com

Airspace protection policies restrict the maximum buildable height of new structures within the Airport vicinity. A preliminary airspace analysis found that the proposed building would not penetrate any critical airspace surfaces. However, because of the Project's proximity to the Airport and its potential effect on air navigation facilities, the Federal Aviation Administration (FAA) requires notification of proposed construction pursuant to CFR Title 14 Part 77.9. FAA Form 7460-1, Notice of Proposed Construction or Alteration, may be submitted through the FAA's Obstruction Evaluation/Airport Airspace Analysis website (http://oeaaa.faa.gov). A Determination of No Hazard from the FAA should be obtained prior to project approval. C2

In addition, ALUCP policy deems certain flight hazards to be incompatible uses: "Specific characteristics that may create hazards to aircraft in flight and which are incompatible include…Any use that creates an increased attraction for wildlife, particularly large flocks of birds, that is inconsistent with FAA rules and regulations…" (Policy AP-4). According to the Project's Initial Study, the proposed facilities would be covered and would not attract large concentrations of birds that might pose a hazard to air navigation. C3

The Airport appreciates your consideration of these comments. If I can be of assistance as the City considers airport land use compatibility as it relates to this project or future projects, please do not hesitate to contact me at (650) 821-7867 or at john.bergener@flysfo.com.

Sincerely,

John Bergener
Airport Planning Manager
San Francisco International Airport
Bureau of Planning and Environmental Affairs

cc: Rich Napier, Executive Director, C/CAG
Nixon Lam, SFO, Manager of Environmental Affairs
Bert Ganoung, SFO, Noise Abatement Manager

Exhibit C

Mitigation Monitoring and Reporting Program

BLUE LINE BIOGENIC CNG FACILITY
Mitigation Monitoring and Reporting Program

Introduction

When approving projects with mitigation measures that if implemented would avoid significant impacts, the California Environmental Quality Act (CEQA) requires public agencies to adopt monitoring and reporting programs or conditions of project approval to mitigate or avoid the identified significant effects (Public Resources Code Section 21081.6(a)(1)). A public agency adopting measures to mitigate or avoid the significant impacts of a proposed project is required to ensure that the measures are fully enforceable, through permit conditions, agreements, or other means (Public Resources Code Section 21081.6(b)). The mitigation measures required by a public agency to reduce or avoid significant project impacts not incorporated into the design or program for the project may be made conditions of project approval as set forth in a Mitigation Monitoring and Reporting Program (MMRP). The program must be designed to ensure project compliance with mitigation measures during project implementation.

The MMRP includes the mitigation measures identified in the Initial Study/Mitigated Negative Declaration (IS/MND) for the Blue Line Biogenic CNG Facility which are required to address the significant impacts associated with the proposed project. The required mitigation measures are summarized in this program; the full text of the impact analysis and mitigation measures are presented in the IS/MND (September 2012).

Format

The MMRP is organized in a table format (see Table 1), keyed to each significant impact and each mitigation measure. Each mitigation measure is set out in full, followed by a tabular summary of monitoring requirements. The column headings in the tables are defined as follows:

- **Mitigation Measures adopted as Conditions of Approval:** This column presents the mitigation measure identified in the IS/MND.
- **Implementation Procedures:** This column identifies the procedures associated with implementation of the migration measure.
- **Monitoring Responsibility:** This column contains an assignment of responsibility for the monitoring and reporting tasks.

- **Monitoring and Reporting Action:** This column refers to the outcome from implementing the mitigation measure.

- **Mitigation Schedule:** This column presents the general schedule for conducting each mitigation task, identifying where appropriate, both the timing and the frequency of the action.

- **Verification of Compliance:** This column will be used by the lead agency to document the person who verified the implementation of the mitigation measure and the date on which this verification occurred.

Enforcement

If the proposed project is approved, the MMRP would be incorporated as a condition of such approval. Therefore, all mitigation measures for significant impacts must be carried out in order to fulfill the requirements of approval. A number of the mitigation measures would be implemented during the course of the development review process. These measures would be checked on plans, in reports, and in the field prior to construction. Most of the remaining mitigation measures would be implemented during the construction or project implementation phase.

TABLE 1
MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Air Quality					
Mitigation Measure AIR-1: During active construction, the applicant shall require construction contractors to implement all the BAAQMD's Basic Construction Mitigation Measures, listed below: 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day, or more often if needed to control fugitive dust. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 mph. 5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. 6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. 7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. 8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.	Applicant and its contractor(s) shall prepare a Construction Air Pollutant Control Plan that adheres to all specifications in this measure	Applicant/Contractor Lead Agency	Verify inclusion of Construction Air Pollutant Control Plan in applicable construction plans and specifications; field inspections Inspect construction site to verify compliance with Construction Air Pollutant Control Plan measures	Prior to issuance of grading building permit(s) At least one inspection shall occur during construction	*Verified by:* *Date:*
Mitigation Measure AIR-2: The applicant shall develop and comply with an Odor Impact Minimization Plan (OIMP) pursuant to the requirements of the California Code of Regulations, Title 14, Division 7, Chapter 3.1, Article 3, Section 17863.4. Once complete, the OIMP shall be submitted to the LEA for a 30-day period for review and comment.	The applicant has prepared and submitted the OIMP to the City and LEA for review	Applicant LEA	Implement and enforce the OIMP	During operations	*Verified by:* *Date:*

TABLE 1 (Continued)
MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Biological Resources					
Mitigation Measure BIO-1: Prior to construction during the months of March to August, a qualified biologist shall conduct pre-construction surveys to locate any active nests no more than 14 days prior to these construction activities. These nesting bird surveys shall be performed in the project area and surrounding 500 feet, in coordination with the City. Construction activities performed between September and February would avoid the general nesting period for birds and therefore would not require preconstruction surveys. If active nests are observed on the project site or surrounding area, the project applicant shall establish buffer zones around the nests, with the size to be determined in consultation with California Department of Fish and Game (usually 100 feet for perching birds and 300 feet for raptors). No ground-disturbance activities shall occur within this buffer zone until young have fledged or the nest is otherwise abandoned. If work during the nesting season stops for 14 days or more and then resumes, then nesting bird surveys shall be repeated, to ensure that no new birds have begun nesting in the area.	Applicant and its contractor(s) shall prepare construction plans that incorporate pre-construction surveys and buffer zones. The applicant shall identify and engage a qualified biologist to conduct pre-construction surveys.	Applicant Qualified Biologist	Select qualified biologist. Review pre-construction survey reports. If active nests are found, inspect construction site to confirm buffer zones.	No more than 14 days before start or restart of construction during the months of March to August.	*Verified by:* *Date:*
Hazards and Hazardous Materials					
Mitigation Measure HAZ-1: Prior to project approval, the applicant shall prepare and implement a Fire Safety Plan that outlines fire hazards, describes facility operations procedures to prevent ignition of fires, requires regular inspection of fire suppression systems, and provides worker training in safety procedures as well as protocols for responding to fire incidents. The Fire Safety Plan shall be reviewed and approved by the local fire enforcement agency.	The applicant shall prepare a Fire Safety Plan that adheres to all specifications of this measures	Applicant Fire Enforcement Agency	Review project specifications for inclusion of controls specified in the Fire Safety Plan Provide worker safety training for responding to fires Inspect fire suppression systems	During operations	*Verified by:* *Date:*
Noise					
Mitigation Measure NOI-1: The project applicant shall require construction contractors to implement the following mitigation measures: • Consistent with the City of South San Francisco Municipal Code, all noise generating construction activities shall be limited to between the hours of 8 a.m. and 8 p.m. on weekdays, 9 a.m. and 8 p.m. on Saturday, and 10 a.m. and 6 p.m. on Sundays and holidays.	Applicant and its contractor(s) shall incorporate the specifications of this measure into project specifications	Applicant Lead Agency	Inspect construction site to confirm compliance with specifications in this measure	At least one inspection shall occur during construction	*Verified by:* *Date:*

RESOLUTION NO. 2828 - 2012

PLANNING COMMISSION, CITY OF SOUTH SAN FRANCISCO STATE OF CALIFORNIA

A RESOLUTION MAKING FINDINGS AND APPROVING A USE PERMIT MODIFICATION AND DESIGN REVIEW FOR AN ANAEROBIC DIGESTER FACILITY AT 500 EAST JAMIE COURT

WHEREAS, Blue Line Transfer,Inc. ("Owner" or "Applicant") has proposed to install an Anaerobic Digestion Facility ("Project") at the Blue Line Transfer facility at 500 East Jamie Court ("Project Site") in the City of South San Francisco ("City"); and,

WHEREAS, Applicant seeks approval of a Use Permit Modification (UPM12-0002) and Design Review (DR12-0009); and,

WHEREAS, approval of the Applicant's proposal is considered a "Project" for purposes of the California Environmental Quality Act, Pub. Resources Code, §§ 21000, *et seq.* ("CEQA"); and,

WHEREAS, the Planning Commission reviewed and carefully considered the information in the IS/MND, and by separate resolution adopted the IS/MND as an objective and accurate document that reflects the independent judgment and analysis of the City in the discussion of the Project's environmental impacts; and,

WHEREAS, on December 6, 2012 the Planning Commission for the City of South San Francisco held a lawfully noticed public hearing to solicit public comment and consider the IS/MND and the proposed entitlements, take public testimony on the Project.

NOW, THEREFORE, BE IT RESOLVED that based on the entirety of the record before it, which includes without limitation, the California Environmental Quality Act, Public Resources Code §§ 21000, et seq. ("CEQA") and the CEQA Guidelines, 14 California Code of Regulations § 15000, et seq.; the South San Francisco 1999 General Plan and General Plan Environmental Impact Report, including the 2001 updates to the General Plan and 2001 Supplemental Environmental Impact Report; the South San Francisco Municipal Code; the Initial Study and Mitigated Negative Declaration prepared for the Project; all reports, minutes, and public testimony submitted as part of the Design Review Board meeting held on July 17, 2012; all reports, minutes, and public testimony submitted as part of the Planning Commission's meeting held on December 6, 2012; and any other evidence (within the meaning of Public Resources Code § 21080(e) and § 21082.2), the Planning Commission of the City of South San Francisco hereby finds as follows:

I. General Findings

A. The foregoing recitals are true and correct and made a part of this Resolution.

B. The Exhibits attached to this Resolution, including the Conditions of Project Approval (Exhibit A), are incorporated by reference as part of this Resolution, as if each were set forth fully herein.

C. The documents and other material constituting the record for these proceedings are located at the Planning Division for the City of South San Francisco, 315 Maple Avenue, South San Francisco, CA 94080, and in the custody of Chief Planner, Susy Kalkin.

II. Use Permit

A. The Project is consistent with the standards and requirements of the City's Zoning Ordinance and with the provisions of the Mixed Industrial (MI) Zoning District in which the Project Site is located. In the MI district, Major Utility uses, including Transfer Stations and Materials Recovery Facilities, are allowed with the approval of a Conditional Use Permit. The existing facility was originally approved with a Use Permit (UP-98-013) in 1999, and an Environmental Impact Report Addendum (P06-0093) in 2007, and the Project continues to comply with the development standards established for the MI District, and with all other applicable provisions of this Ordinance and all other titles of the South San Francisco Municipal Code.

B. The Project is consistent and compatible with all elements in the City of South San Francisco General Plan. The Project site is designated Mixed Industrial, which promotes a broad range of industrial uses, including manufacturing and industrial processing. Industries producing substantial amounts of hazardous waste or odor and other pollutants are not permitted. The existing use has procedures in place to mitigate odors from the facility, and the Project will be required to prepare and implement an Odor Impact Minimization Plan so no substantial impacts will be created. Further, the land use, development standards, densities and intensities, buildings and structures proposed are compatible with the goals, policies, and land use designations established in the General Plan.

C. The Project will not be adverse to the public health, safety, or general welfare of the community, nor detrimental to surrounding properties or improvements because the anaerobic digester use will be operated in accordance with the highest operating standards and procedures, including: preparation and implementation of an Odor Impact Minimization Plan to mitigate any potential odors; and, revision of the Solid Waste Facility Permit for the entire site to accommodate the anaerobic digester and clean natural gas facilities. The proposed project will assist South San Francisco Scavenger and the city to meet ongoing environmental goals and objectives, such as AB 341, which mandates commercial recycling, and AB 32, which mandates reductions in greenhouse gases.

D. The Project complies with design or development standards applicable to the MI Zoning District, and parking requirements included in Chapter 20.330 "On-Site Parking and Loading". Further, the Project was reviewed by the City's Design Review Board for architectural, landscape and general urban design compatibility with surrounding development.

E. The design, location, size, and operating characteristics of the Project would be compatible with the existing and reasonably foreseeable future land uses in the vicinity because the materials recovery facility and transfer station is located in a general industrial neighborhood, with research and development campuses and miscellaneous industrial buildings; the anaerobic digester facility has been designed to be compatible with the existing buildings on the property; the Project will improve the appearance of the site by increasing the amount of landscape screening around the site, relocating container storage off-site and moving fleet vehicle storage to the rear of the facility; and the total amount of activity on the site would not be increased due to the project.

F. The site is physically suitable for the type, density, and intensity of use being proposed, including access, utilities, and the site is currently occupied by a materials recovery facility and transfer station. The suitability of the site for the Project was analyzed thoroughly in the IS/MND, which concludes that approval of the Project will not result in any significant environmental impacts.

G. By Resolution No. 2727, the Planning Commission, exercising its independent judgment, has found that an IS/MND was prepared for the Project in accordance with CEQA, which adequately analyzes the proposed Project's potential environmental impacts. The Planning Commission has further found that the Project, with mitigation proposed in the IS/MND, will not exceed established CEQA thresholds of significance.

III. Design Review

A. The applicable standards and requirements of the South San Francisco Zoning Ordinance have been addressed and the Design Review Board commented on the project at their meeting on July 17, 2012. The project plans have been revised to comply with the Design Review Board comments.

B. The Project, including Design Review, is consistent with the General Plan because the proposed Anaerobic Digester Facility is consistent with the policies and design direction provided in the South San Francisco General Plan for the MI land use designation.

C. The Project, including Design Review, is consistent with the design guidelines adopted by the City Council in that in that the Project Site improvements, including building design, landscaping and parking upgrades, were designed in accordance with the South San Francisco Design Guidelines to provide a cohesive development.

D. The Project is consistent with the design guidelines adopted by the City Council in that the proposed use is consistent with the Mixed Industrial District Development Standards and Supplemental Regulations included in Sections 20.110.003 and 20.110.004.

E. The Project is consistent with the applicable design review criteria in Section 20.480.006 ("Design Review Criteria") because the project has been evaluated against, and found to be consistent with, each of the eight design review criteria included in the "Design Review Criteria" section of the Ordinance.

BE IT FURTHER RESOLVED that the Planning Commission of the City of South San Francisco hereby makes the findings contained in this Resolution in approving the Use Permit Modification and Design Review for the Project, subject to the Conditions of Approval attached as Exhibit A.

BE IT FURTHER RESOLVED that this Resolution shall become effective immediately upon its passage and adoption.

* * * * * * *

I hereby certify that the foregoing resolution was adopted by the Planning Commission of the City of South San Francisco at the regular meeting held on the 6th day of December, 2012 by the following vote:

AYES: Commissioner Gupta, Commissioner Martin, Vice-Chairperson Ochsenhirt, Commissioner Prouty, Chairperson Zemke

NOES: None

ABSTAIN: None

ABSENT: Commissioner Giusti, Commissioner Sim

Attest: 

Susy Kalkin
Secretary to the Planning Commission

Exhibit A
DRAFT CONDITIONS OF APPROVAL
P12-0022: UPM12-0002 & DR12-0009
SOUTH SAN FRANCISCO SCAVENGER (500 E JAMIE CT)
(As recommended by City Staff on December 6, 2012)

All previous conditions of approval and mitigation measures associated with UP98-013 and P06-0093 shall remain in full force and effect.

A) Planning Division requirements shall be as follows:

1. The applicant shall comply with the Planning Divisions standard Conditions and Limitations for Commercial Industrial and Multi-Family Residential Projects.

2. The applicant shall comply with all mitigation measures outlined in the Blue Line Biogenic CNG Facility Initial Study/Mitigated Negative Declaration, dated September 2012.

3. The project shall be completed and operated substantially as indicated in the plans prepared by the applicant and approved by the Planning Commission in association with P12-0022, as amended by the Conditions of Approval. The final plans shall be subject to the review and approval of the City's Chief Planner prior to the issuance of a Building Permit.

4. All equipment (either roof or ground-mounted) shall be screened from view through the use of integral architectural elements (i.e. enclosures or roof screens and landscape screening). The applicant/owner shall submit equipment enclosures and/or roof screens for review and approval by the Chief Planner prior to submittal for Building Permit.

5. Any exterior design modifications, including any and all utilities, shall be subject to the provisions of SSFMC Chapter 20.450.012 ("Modification").

6. The fueling facility is limited to servicing South San Francisco Scavenger fleet vehicles and shall not be used for general commercial purposes by any other outside operations or the general public.

7. Prior to the issuance of a Building Permit, all roll-off container storage shall be relocated off-site in accordance with the project narrative.

(Planning Division contact: Billy Gross, Associate Planner, 650/877-8535)

B) Fire Department requirements shall be as follows:

1. Install fire sprinkler system per NFPA 13/SSFFD requirements under separate fire plan check and permit for overhead and underground.

2. Fire sprinkler system shall be central station monitored per California Fire Code section 1003.3.

3. Install a standpipe system per NFPA 14/SSFFD requirements under separate fire plan check and permit.

4. Install exterior listed horn/strobe alarm device, not a bell.

5. Fire alarm plans shall be provided per NFPA 72 and the City of South San Francisco Municipal Code.

6. Fire extinguishers shall be mounted as appropriate on the new buildings.

7. All non-parking space curbs to be painted red to local Fire Code Specifications.

8. Access aisles shall have all weather driving capabilities and support the imposed load of 75,000 pounds.

9. Provide fire hydrants with an average spacing of 400 feet between hydrants. The location and number of hydrants shall be determined prior to the issuance of building permits. The fire hydrants shall have a minimum fire flow of 3000 gpm at 20 psi residual pressure for a duration of 4 hours.

10. All buildings shall provide premise identification in accordance with SSF Municipal Code Section 15.24.100.

11. Provide Knox key box for each building with access keys to entry doors, electrical/mechanical rooms, elevators, and others to be determined.

12. The minimum vehicle access width is 20 feet per the California Fire Code.

13. Provide Hazardous Materials Business Plan including what chemicals are present and to what quantities. Include a list of hazardous materials and quantities that will be present in the buildings, including all flammable and combustible materials.

14. All buildings shall have Emergency Responder Radio Coverage throughout in compliance with Section 510 of the California Fire Code.

(Fire Department contact: Luis Da Silva, Fire Marshal, 650/829-6645)

C) Police Department requirements shall be as follows:

1. Municipal Code Compliance

The applicant shall comply with the provisions of Chapter 15.48 of the Municipal Code, "Minimum Building Security Standards" Ordinance revised May 1995. The Police Department reserves the right to make additional security and safety conditions, if necessary, upon receipt of detailed/revised building plans.

(Police Department contact: Sgt. Scott Campbell, 650/877-8927)

D) Water Quality Control Plant requirements shall be as follows:

1. A plan showing the location of all storm drains and sanitary sewers must be submitted.

2. Fire sprinkler test discharge line must be connected to the sanitary sewer.

3. Trash area(s) shall be covered and have a drain(s) that is connected to the sanitary sewer.

4. The onsite catch basins are to be stenciled with the approved San Mateo Countywide Stormwater Logo (No Dumping! Flows to Bay).

5. If there is drainage from the biogas facility is discharged from the facility to the sanitary sewer then it must be routed through the sample point and discharge line must have a flow meter connected to it for measuring discharge.

6. A trench drain must be installed across the length of the biogas facility and be placed under the awning 1 foot from the edge of the awning. The trench drain grating must be at least 12 inches wide and connect to a grease interceptor. Grease interceptor must be at least 1000 gallon liquid capacity. The interceptor must be connected to the sanitary sewer.

7. Storm water from the disturbed project area must be included in the treatment system design. (Stormwater treatment systems must be designed to treat stormwater runoff from the entire project.) Use attached worksheets to determine rainwater harvesting and infiltration feasibility.

   Storm water pollution preventions devices are to be installed. Prefer clustering of structures and pavement; directing roof runoff to vegetated areas; use of micro-detention, including distributed landscape-based detention; and preservation of open space. Treatment devices must be sized according Provision C.3.d Numeric Sizing Criteria for Stormwater Treatment Systems of NPDES No. CAS612008.

8. The applicant must submit a signed Operation and Maintenance Information for Stormwater Treatment Measures form for the stormwater pollution prevention devices installed.

9. The applicant must submit a signed maintenance agreement for the stormwater pollution prevention devices installed. Each maintenance agreement will require the inclusion of the following exhibits:
   a. A letter-sized reduced-scale site plan that shows the locations of the treatment measures that will be subject to the agreement.
   b. A legal description of the property.
   c. A maintenance plan, including specific long-term maintenance tasks and a schedule. It is recommended that each property owner be required to develop its own maintenance plan, subject to the municipality's approval. Resources that may assist property owners in developing their maintenance plans include:
      i. The operation manual for any proprietary system purchased by the property owner.
10. Applicant must complete the C.3 and C.6 Development Review Checklist prior to issuance of a permit and return to the Technical Services Supervisor at the WQCP.
11. Landscaping shall meet the following conditions related to reduction of pesticide use on the project site:
    a. Where feasible, landscaping shall be designed and operated to treat stormwater runoff by incorporating elements that collect, detain, and infiltrate runoff. In areas that provide detention of water, plants that are tolerant of saturated soil conditions and prolonged exposure to water shall be specified.
    b. Plant materials selected shall be appropriate to site specific characteristics such as soil type, topography, climate, amount and timing of sunlight, prevailing winds, rainfall, air movement, patterns of land use, ecological consistency and plant interactions to ensure successful establishment.
    c. Existing native trees, shrubs, and ground cover shall be retained and incorporated into the landscape plan to the maximum extent practicable.
    d. Proper maintenance of landscaping, with minimal pesticide use, shall be the responsibility of the property owner.
    e. Integrated pest management (IPM) principles and techniques shall be encouraged as part of the landscaping design to the maximum extent practicable. Examples of IPM principles and techniques include:
       i. Select plants that are well adapted to soil conditions at the site.
       ii. Select plants that are well adapted to sun and shade conditions at the site. In making these selections, consider future conditions when plants reach maturity, as well as seasonal changes.
       iii. Provide irrigation appropriate to the water requirements of the selected plants.

iv. Select pest-resistant and disease-resistant plants.

v. Plant a diversity of species to prevent a potential pest infestation from affecting the entire landscaping plan.

vi. Use "insectary" plants in the landscaping to attract and keep beneficial insects.

12. Source control measures must include:
    - Landscaping that minimizes irrigation and runoff, promotes surface infiltration where possible, minimizes the use of pesticides and fertilizers, and incorporates appropriate sustainable landscaping practices and programs such as Bay-Friendly Landscaping.
    - Appropriate covers, drains, and storage precautions for outdoor material storage areas, loading docks, repair/maintenance bays, and fueling areas.
    - Covered trash, food waste, and compactor enclosures.
    - Plumbing of the following discharges to the sanitary sewer, subject to the local sanitary sewer agency's authority and standards:
      o Dumpster drips from covered trash and food compactor enclosures.
      o Discharges from outdoor covered wash areas for vehicles, equipment, and accessories.

13. A construction Storm Water Pollution Prevention Plan must be submitted and approved prior to the issuance of a permit.

14. Plans must include location of concrete wash out area and location of entrance/outlet of tire wash.

15. A grading and drainage plan must be submitted.

16. Must file a Notice of Termination with the WQCP when the project is completed.

17. Applicant must pay sewer connection fee at a later time based on anticipated flow, Biochemical Oxygen Demand and Total Suspended Solids calculations.

(WQCP contact: Rob Lecel, Senior Environmental Compliance Inspector, 650/829-3882)

STANDARD CONDITIONS AND LIMITATIONS FOR COMMERCIAL INDUSTRIAL AND MULTI-FAMILY RESIDENTIAL PROJECTS

1. Unless the use has commenced or related building permits have been issued within two (2) years of the date this permit is granted, this permit will automatically expire on that date. A one year plan extension may be granted in accordance with provisions of the SSFMC.

2. The permit shall not be effective for any purpose until the property owner or a duly authorized representative files an affidavit, prior to the issuance of a building permit, stating that the property owner is aware of, and accepts, all of the conditions of the permit.

3. The permit shall be suspended and the privileges granted by the permit shall lapse, if any of the conditions are violated, or if any law, statute or ordinance is violated, provided that the applicant has been given written notice to cease the violation and has failed to do so for a period of 30 days.

4. Minor changes or deviations from the Conditions of Approval of the permit may be approved by the Chief Planner. Major changes require approval of the Planning Commission, or final approval body of the City.

5. Neither the granting of this permit nor any conditions attached thereto shall authorize, require or permit anything contrary to, or in conflict with any ordinances specifically named therein.

6. Prior to construction, all required building permits shall be obtained from the City□s Building Division.

7. All conditions of the permit shall be completely fulfilled to the satisfaction of the affected City Departments and Divisions Planning and Building Divisions prior to occupancy of any building. Any request for temporary power for testing equipment will be issued only upon substantial completion of the development.

8. All exterior lights shall be installed in such a manner that there shall be no illumination on adjacent properties or streets which might be considered either objectionable by adjacent property owners or hazardous to motorists.

9. No additional signs, flags, pennants or banners shall be installed or erected on the site without prior approval.

10. Adequate trash areas shall be provided and enclosed by a six (6) foot high decorative masonry wall. Adequate solid gates and vehicular access to such areas shall be provided.

11. All ducting for air conditioning, heating, blower systems, accessory mechanisms and all other forms of mechanical or electrical equipment which are placed on or adjacent to the building shall be screened from public view.

12. All parking spaces, driveways, maneuvering aisles, turn-around areas and landscaping areas shall be kept free of debris, litter and weeds at all times. Site, structures, paving, landscaping, light standards, pavement markings and all other facilities shall be permanently maintained.

13. There shall be no open storage materials of materials or equipment on the subject property, except as approved by each permit.

14. The construction and permitted use on the property shall be so conducted as to reduce to a minimum any noise vibration or dust resulting from the operation.

15. All sewerage and waste disposal shall be only by means of an approved sanitary system.

16. Prior to any on-site grading, a grading permit shall be obtained from the City Engineer.

17. All existing utility lines, underground cable conduits and structures which are not proposed to be removed shall be shown on the improvement plans and their disposition noted.

18. Landscape Maintenance

    1. All landscape areas shall be watered via an automatic irrigation system which shall be maintained in fully operable condition at all times.
    2. All planting areas shall be maintained by a qualified professional; the landscape shall be kept on a regular fertilization and maintenance program and shall be maintained weed free.
    3. Plant materials shall be selectively pruned by a qualified arborist; no topping or excessive cutting-back shall be permitted. Tree pruning shall allow the natural branching structure to develop.
    4. Plant materials shall be replaced when necessary with the same species originally specified unless otherwise approved by the Chief Planner.

20.570 Appeals and Calls for Review

Sections:

20.570.001 Purpose and Applicability

This chapter establishes uniform procedures for appeals of final decisions by the Chief Planner and Planning Commission. These procedures are distinguished from the provisions in Chapter 20.510 ("Waivers and Modifications"), which are intended to minimize the frequency of appeals by authorizing the approval of modifications and exceptions to the requirements of this Ordinance when consistent with its purposes or necessary to accommodate uses protected by State or federal law. The intent of both of these chapters is to provide means of granting relief, reduce the potential for litigation, and increase fairness to both property owners and aggrieved members of the public.

20.570.002 Rights of Appeal

Appeals may be filed by the applicant, by the owner of property, or by any other person aggrieved by a decision that is subject to appeal under the provisions of this Ordinance.

20.570.003 Time Limits

Unless otherwise specified in State or federal law, all appeals shall be filed in writing within 15 days of the date of the action, decision, motion, or resolution from which the appeal is taken. In the event an appeal period ends on a Saturday, Sunday, or any other day the City is closed, the appeal period shall end at the close of business on the next consecutive business day.

20.570.004 Procedures

Any action by the Chief Planner or Planning Commission in the administration or enforcement of the provisions of this Ordinance may be appealed in accordance with this chapter.

A. **Appeals of Chief Planner Decisions.** Decisions of the Chief Planner that are subject to appeal may be appealed to the Planning Commission by filing a written appeal with the Planning Division except appeals based solely on the requirement of a fee shall be filed in writing with the City Clerk and heard by the City Council.

B. **Appeals of Planning Commission Decisions.** Decisions of the Planning Commission may be appealed to the City Council by filing a written appeal with the City Clerk.

C. **Filing.** The appeal shall identify the decision being appealed and shall clearly and concisely state the reasons for the appeal. The appeal shall be accompanied by the fee specified in the City's master fee schedule.

D. **Proceedings Stayed by Appeal.** The timely filing of an appeal shall stay all proceedings in the matter appealed including, but not limited to, the issuance of City building permits and business licenses.

E. **Transmission of Record.** The Chief Planner, or in the case of appeals to the City Council, City Clerk, shall schedule the appeal for consideration by the authorized hearing body at the next available meeting. The Chief Planner shall forward the appeal, the Notice of Action, and all other documents that constitute the record to the hearing body. The Chief Planner shall also prepare a staff report that responds to the issues raised by the appeal and may include a recommendation for action. The authorized hearing body shall review the appeal, the record, and any written correspondence submitted after the appeal has been filed, and may take one of the following actions:

1. Schedule and conduct a public hearing in compliance with Section 20.450.005 ("Conduct of Public Hearing"); or

2. Remand the matter to the decision-making body or official to cure a deficiency in the record or the proceedings.

F. **Action on Remand.** If the Council directs the Commission or the Commission directs the Chief Planner to hold a new public hearing, the responsible authority shall hold a new noticed public hearing on the matter and make a decision which may be appealed to the Council or the Commission in the normal manner. If the authority to whom the appeal is remanded does not act within 90 days of the date of the remand, then the original appeal of the decision shall be placed back on the Council or Commission agenda in the same manner as a new appeal.

G. **Public Notice and Hearing.** If the appellate body sets the appeal for hearing, public notice shall be provided and the hearing conducted by the applicable hearing body pursuant to Chapter 20.450 ("Common Procedures"). Notice of the hearing shall also be given to the applicant and party filing the appeal. In the case of an appeal of a Planning Commission decision, notice of such appeal shall also be given to the Planning Commission. The Planning Commission may be represented at the hearing.

1. Hearings on appeals of conditions imposed upon projects or from the approval or denial of applications for permits or other land use entitlements shall be conducted informally and need not be conducted according to technical rules relating to evidence and witnesses.

2. The appellate body shall consider only the same application, plans, and related project materials that were the subject of the original decision. The appellate body may, however, request or require changes to the application as a condition of approval.

20.570.005 Action and Decision

A. The hearing body shall render its decision within 60 days of the date the hearing is closed unless State law requires a shorter deadline. Failure on the part of the City Council to render

its decision within the 60-day time frame shall be deemed an approval by the City Council of the Planning Commission's action.

B. An action to grant an appeal shall require a majority vote of the hearing body members. A tie vote shall have the effect of rejecting the appeal.

20.570.006 Calls for Review

A majority of the Planning Commission may call for review of a decision by the Chief Planner and a majority of the City Council may call for review of a decision of the Chief Planner or Planning Commission within the 15-day appeal period. The call for review shall be processed in the same manner as an appeal by any other person. Such action by the Commission or Council shall stay all proceedings in the same manner as the filing of an appeal. Such action shall not require any statement of reasons and shall not represent opposition to or support of an application or appeal.

20.570.007 Standards of Review

When reviewing any decision on appeal, the hearing body shall use the same standards for decision-making required for the original decision. The hearing body may adopt the same decision and findings as were originally approved.

ACCEPTANCE FORM

Please sign and return **only this form** to the Planning Division. Failure to return the signed form within **10** days may result in a rehearing by the Planning Commission.

Case No.: **P12-0022:** UPM12-0002, ND12-0001 & DR12-0009

Date: December 10, 2012

☐ As the owner of the real property which is the subject of the above-mentioned case, I am aware of, and accept, **ALL** of the conditions of approval.

I certify under penalty of perjury that the foregoing is true and correct.

_____

Signature Date

☐ As the applicant of the above-mentioned case, I am aware of, and accept, **ALL** of the conditions of approval.

I certify under penalty of perjury that the foregoing is true and correct.

_____

Signature Date

Return to: Planning Division
City of South San Francisco
P. O. Box 711
South San Francisco, CA 94083

Revised 03/2004

BLUE LINE TRANSFER, INC /Owner/Applicant
Anaerobic Digestion Facility

NOTICE OF DETERMINATION

To: **County Clerk**
County of San Mateo
County Recorder
Special Services - 6th Floor
401 Marshall Street
Redwood City, CA 94063

From: City of South San Francisco
P. O. Box 711 – 315 Maple Avenue
South San Francisco, CA 94080

Subject:

Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

P12-0022: UPM12-0002, ND12-0001 & DR12-0009; Anaerobic Digestion Facility
Project Title

2012092007	Billy Gross, Associate Planner	(650) 877-8535
State Clearinghouse Number (If submitted to Clearinghouse)	Lead Agency Contact Person	Area Code/Telephone/Extension

500 E JAMIE CT, South San Francisco, CA 94080 – County of San Mateo
Project Location (include county)

Use Permit Modification, Design Review and Mitigated Negative Declaration to install an Anaerobic Digestion Facility at Blue Line Transfer at 500 East Jamie Court in the Mixed Industrial (MI) Zone District in accordance with SSFMC Chapters 20.110, 20.300, 20.330, 20.460, 20.480 & 20.490.

This is to advise that the South San Francisco Planning Commission, Lead Agency, approved the above described project on ***12/06/12*** and made the following determinations regarding the above described project.

1. The project [☐will ☑will not] have a significant effect on the environment.
2. ☐ An Environment Impact Report was prepared for this project pursuant to the provisions of CEQA.
3. ☑A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
4. Mitigation measures [☑were ☐were not] made a condition of the approval of the project.
5. A statement of Overriding Considerations [☐was ☑was not] adopted for this project.
6. A mitigation reporting or monitoring plan [☑was ☐was not] adopted for this project.
7. Findings [☑were ☐were not] made pursuant to the provisions of CEQA.

This is to certify that the final MND with comments and responses and record of project approval is available to the General Public at:
Planning Division, 315 Maple Avenue, South San Francisco, CA 94080

Signature (Public Agency)	December 10, 2012 Date	Chief Planner Title

Date received for filing at OPR:

Revised September 1993

City of South San Francisco
Economic & Community
Development Department
Planning Division

USE PERMIT: P12-0022

Project location: 500 E JAMIE CT

Project Description: Use Permit Modification, Design Review and Mitigated Negative Declaration to install an Anaerobic Digestion Facility at Blue line Transfer at 500 East Jamie Court in the Mixed Industrial (MI) Zone District in accordance with SSFMC Chapters 20.110, 20.300, 20.330, 20.460, 20.480 & 20.490.

Subprojects: UPM12-0002, ND12-0001 & DR12-0009

Applicant: BLUE LINE TRANSFER, INC

Owner: BLUE LINE TRANSFER, INC

Susy Kalkin, Chief Planner
12/10/2012

See Reverse for details

This project has been approved based on the Findings and subject to the attached Conditions of Approval adopted by the Planning Commission on December 6, 2012

South San Francisco Municipal Code

20.450.011 Expiration and Extension

A. Unless a time extension is approved pursuant to subsection B below, any use permit, design review approval, variance or other discretionary approval granted in accordance with the terms of this Ordinance shall automatically expire if building permits have not been issued within two years from the date of final approval.

B. A time extension not exceeding one year beyond the initial two-year period may be requested by applying to the Chief Planner prior to the expiration date of the permit. In no case shall the expiration period extend more than three years from the date of final approval. After that time, a new application shall be required.

C. The Chief Planner shall refer an extension request to the Chief Building Official, Fire Chief, Police Chief, and Public Works Director or other affected City Department for their review and recommendation prior to decision.

D. In order for the Chief Planner to grant an extension pursuant to subsection C above, it shall find:

1. That the permit holder has clearly documented that it has made a good faith effort to commence work upon the use;
2. That it is in the best interest of the City to extend the permit; and
3. That there are no substantial changes to the project, no substantial changes to the circumstances under which the project is undertaken, and no new information of substantial importance that would require any further environmental review pursuant to the California Environmental Quality Act.

E. In granting an extension pursuant to subsection C above, the Chief Planner may modify the conditions of approval, as she/he deems necessary in order to fulfill the purposes of this chapter.

20.490.007 Appeals, Expiration, Extensions and Modifications

A. **Appeals.** A decision of the Chief Planner may be appealed to the Planning Commission and a decision of the Planning Commission may be appealed to the City Council, as provided in Chapter 20.570 ("Appeals and Calls for Review").

B. **Expiration, Extensions and Modifications.** Use permits are effective and may only be extended or modified as provided for in Chapter 20.450 ("Common Procedures").

20.490.008 Failure to comply with Conditions.

Failure to comply with any Use Permit condition is a violation of this Ordinance subject to enforcement, penalties, and legal procedure as prescribed by Chapter 20.580 ("Enforcement and Abatement Procedures"). Any Use Permit granted in accordance with the terms of this Ordinance may be revoked upon failure to comply with any of the conditions or terms of such permit, or if any law or ordinance is violated in connection therewith.

20.490.009 Revocation Use permits.

A Use Permit may be revoked as provided by Section 20.580.006 ("Revocation of Permits").